TelstraSuper Climate Change Report

TelstraSuper

April 2023

Message from the Chief Executive Officer

Welcome to the second edition of TelstraSuper's Climate Change report.

The global energy landscape has experienced a period of extraordinary turbulence since we launched the inaugural edition of this report last year. While the long-term shift to a low carbon economy continues to gain momentum, the war in Ukraine and global inflation profoundly impacted energy markets in 2022 and delivered mixed outcomes concerning decarbonisation.

Beyond the human suffering and devastation in Ukraine, oil and gas prices climbed sharply as sovereign commodity sourcing constraints were enforced, obliging some nations to increase their coal consumption significantly.

After a COVID-led decline in 2020, global emissions rebounded strongly over 2022 with coal demand for power generation hitting a new record. Meanwhile, the physical effects of climatic events continue. Reports of heatwaves, droughts and devastating flooding continue to dominate news headlines around the globe. Across the scientific community, it's been reported that the past nine years have been the warmest since modern record keeping began in 1880.

But not all the news is disturbing. The energy crisis has put the issue of supply security firmly into the spotlight. This has created a heightened sense of urgency among governments to progress their energy policies and find alternatives to fossil fuels. As a result, many countries have accelerated their plans to roll out renewable power and hydrogen projects. Across the European Union, solar and wind now account for 22% of electricity, surpassing natural gas for the first time.[1]

Australia is also sharpening its focus on a clean energy future. The Government has increased the country's emission reduction targets to 43% below 2005 levels by 2050, sending a powerful signal that Australia will need more clean energy projects to replace the older, ageing coal-fired stations that are being gradually closed.

Net zero emission goal by 2050

Against this backdrop, TelstraSuper remains committed to attaining the goals of the Paris Agreement as outlined in our Climate Change Action Plan (CCAP).

As a long-term investor managing over $24 billion of assets on behalf of our members, TelstraSuper has an important role to play in assisting to minimise the impact of climate change where possible. We believe that considering climate risk for our investment portfolio is consistent with our legal responsibility to provide a secure financial future for our members. Climate risk can be a significant financial risk to our investments and, consequentially, the retirement outcomes of our members. To continue delivering strong long-term returns for our members, we measure and manage climate risks, while also seeking out new investment opportunities as we move to a low carbon economy.

> **"We are confident that we are taking the right steps to meet our interim goals and achieve net zero by 2050."**

[1] ember-climate.org

Progress against our goals

This second edition of our climate report provides updates on how we manage climate-related risks across our portfolio and the progress we have made in the key areas of emission reduction, building portfolio resilience and pro-active investment over the past year.

It is pleasing to note that our work to reduce emissions across our listed assets has progressed significantly. As a result, we are ahead of our interim 2023 target to reduce emissions across our listed equity portfolios by 10%, having achieved a 23% reduction since 2020. This has resulted from asset allocation and portfolio construction decisions particularly with respect to international equities.

2022 also saw us increase our engagement with the highest emitting companies in our portfolio. While we have taken active steps to exclude from investment prime focus thermal coal producers, we believe there is some value in exposure to energy and resource companies, particularly those that have plans to transition to net zero, while delivering future facing materials that enable transition. Through engagement and exercising our voting rights, we seek to keep these companies accountable for their clean energy transition plans and, where possible, use our influence to further progress their journey to decarbonisation.

As outlined in the case study on page 34 in this report, we engaged on several occasions with global mining and metals company, South32, during 2022. We provided feedback to the company on ways to progress its transition plan, including its plans for how regional communities surrounding the company's alumina operations will be impacted by decarbonisation. TelstraSuper recognises that, in addition to having the right strategies to reduce emissions in line with the Paris Agreement, high emitters must also consider how their workers – and the communities they live in – are impacted by the transition process.

Many of TelstraSuper's investments are managed by external asset managers so it's vital that they, too, are actively managing climate risks. In 2022, we engaged with many of our external infrastructure and property asset managers to assess how physical and transition risk exposures are evaluated and how risks are managed and mitigated on an ongoing basis. Pleasingly, most of our infrastructure and property managers have asset level net zero plans and well-defined processes in place to tackle climate change risks. We will continue to encourage the small minority of our external managers who are yet to fully develop or disclose their plans to do so and provide more details.

Investing for a greener future

TelstraSuper continues to evaluate new opportunities to invest in clean energy and new technologies that support decarbonisation. During 2022, we increased our investments in renewable energy opportunities that now stand at over $130m. In December 2022, the Board agreed to establish a goal of investing a total of 1% of the Fund's assets – around $250 million – in climate change focused opportunities by 2025.

Collaborating for improved outcomes

We also recognise the benefits of collaborating with other investor groups to further engage with companies on climate change and to enhance knowledge and capabilities across the superannuation sector. During the year, we joined the Responsible Investment Association of Australasia (RIAA), Australasia's largest network of responsible investors. Joining RIAA will provide TelstraSuper with further opportunities to enhance our approach to responsible investment. The Investor Agenda, a global partnership of seven major climate-related groups, is another organisation that TelstraSuper references for guidance on climate change planning. During the year, it was pleasing to see Investor Agenda showcase our CCAP as a case study among a diverse range of global investors.

We hope this report gives members confidence in our approach to considering climate-related investment risks. We recognise that the risks of climate change must be actively assessed and managed to protect long term returns for our members. While it is early days in the journey, we are confident that we are taking the right steps to meet our interim goals and achieve net zero by 2050.

Chris Davies
Chief Executive Officer

Contents

About this report

In 2017, the Financial Stability Board developed the Task Force on Climate-Related Financial Disclosures (TCFD) reporting framework to help companies understand what financial markets want from public financial disclosures regarding climate change risk management. Since its release, the TCFD framework has become the accepted standard for climate-related reporting for financial market participants, including investors.

This is TelstraSuper's second TCFD aligned report. It documents our climate change-related activity and progress to the end of December 2022 and outlines our plans for 2023 and beyond.

This Climate Change Report is provided by TelstraSuper Pty Ltd (ABN 86 007 422 522, AFSL 236709), the trustee of the Telstra Superannuation Scheme (ABN 85 502 108 833).

Our approach to climate change

TelstraSuper's fundamental objective is to enhance responsibly the financial security of our members in retirement. TelstraSuper seeks to incorporate the analysis of material Environmental, Social and Governance (ESG) considerations in our investment processes. We support the development of a more sustainable global economy and the attainment of the Paris Agreement on climate change.

We believe that climate change is a systemic risk that needs to be managed to help provide a secure future for our current and future members. As a large investor, we can, where it is in the best financial interests of our members to do so, try to influence what the future looks like while managing risk in our portfolios.

In February 2021, we launched our Climate Change Action Plan (CCAP), with the goal of achieving net zero greenhouse gas emissions within our investment portfolios by 2050. The CCAP sets out three high-level goals, as outlined in the diagram below.

A five-pillar framework, as depicted below, was developed to guide TelstraSuper's actions to achieve these goals.

Twenty-five action items have been identified for delivery during the first three years of the plan. These are outlined in more detail in *02 Progress and next steps*.

A more detailed overview of the CCAP, our pathway to 2050 and our progress to date are outlined throughout this report.

TelstraSuper's three climate-related goals

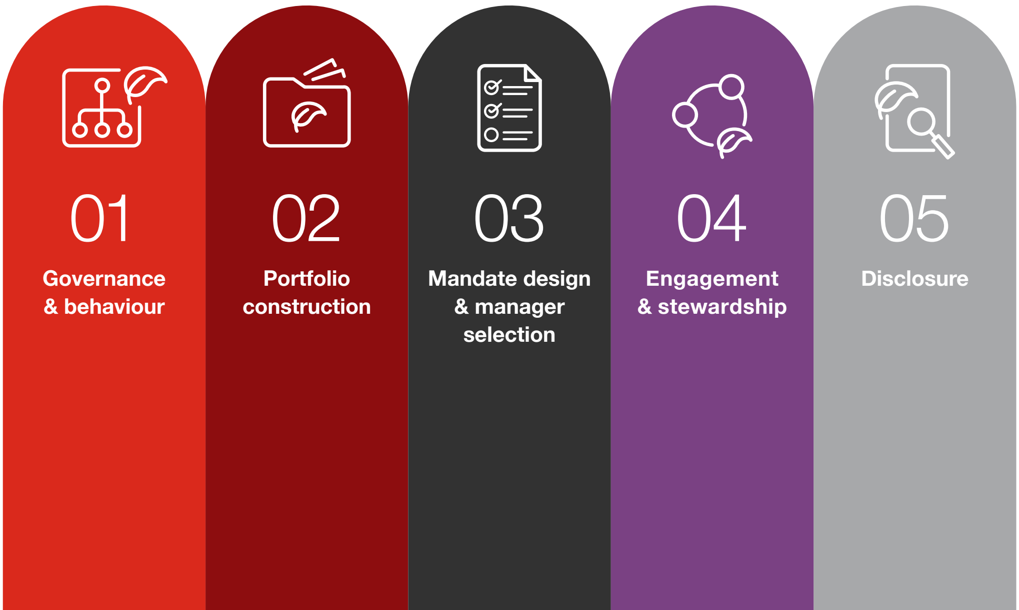
20 50

Achieve **net zero greenhouse gas emissions** by 2050, aiming for a 45% reduction (from 2020 levels) by 2030.

Build **portfolio resilience** to the physical impacts of climate change across asset classes.

Proactively invest in opportunities expected to be net beneficiaries of the transition to a net zero emissions world.

Five-pillar Climate Change Action Plan Framework



Our net zero by 2050 pathway

2023

Disclosure of the first total portfolio quantitative report and a targeted **10% reduction** in listed equity assets' greenhouse gas (GHG) emissions.

2025

Further **15% reduction** in combined GHG emissions of listed assets, alternatives (including private equity) and corporate debt.

2030

Further **20% reduction** in portfolio GHG emissions of listed assets, alternatives (including private equity), corporate debt and real assets (infrastructure and property). Advocate and support economy-wide 45% reduction in GHG emissions in Australia.

2040

Further **30% reduction** in combined GHG emissions of listed assets, alternatives (including private equity), corporate debt and real assets to achieve net zero GHG Emissions.

2050

Remaining 25% reduction in total portfolio emissions to achieve net zero GHG Emissions.

Progress and next steps

02

This section outlines the 25 action items of the Climate Change Action Plan (CCAP) and tracks implementation progress and outlines next steps.

Governance and behaviour		
Investment Committee oversight and Board approval of the Plan, with annual review.	PROGRESS	Board approved CCAP in 2021. Annual review undertaken in 2022.
	NEXT STEPS	Review goals and actions annually.
Update all investment and climate change policies and purpose statements to reflect the Plan.	PROGRESS	Sustainable Investment Policy updated. Proxy Voting Policy updated to incorporate guidelines on matters to be considered when voting on the climate action plans of the companies we invest in. Climate change included in risk management framework.
	NEXT STEPS	Review policies as required.
Review incentives to align with the goals of the Plan.	PROGRESS	Achievement of CCAP embedded within investment team variable reward.
	NEXT STEPS	Review outcomes annually.
Bolster resources to implement the Plan.	PROGRESS	Resources have been added to the investment management team.
	NEXT STEPS	Engage appropriate resource for plan delivery.
Develop climate change skills of Board, Investment Committee, management and investment team.	PROGRESS	The Board attended a climate forum facilitated by the IGCC. Members of the investment team have undertaken structured and informal learning on climate change.
	NEXT STEPS	Ongoing presentations on climate change to the Board, Investment Committee, investment teams and wider stakeholders.
Adopt and implement net zero operational emissions for TelstraSuper's own activities.	PROGRESS	Business operations certified carbon neutral by Climate Active in June 2021.
	NEXT STEPS	Periodic re-certification by Climate Active.

Portfolio construction		
Update climate change scenario analysis on an annual basis, including a net zero emissions scenario.	PROGRESS	Portfolio level scenario analysis completed annually as part of strategic asset allocation review.
	NEXT STEPS	Review approach and assumptions periodically.
Review potential portfolio construction initiatives to manage climate risk exposures.	PROGRESS	Equities allocations modified and other asset classes remain under consideration.
	NEXT STEPS	Assess ongoing strategic asset allocation and portfolio construction requirements to achieve plan.

Invest in low carbon opportunities or other opportunities that are expected to benefit from a transition away from fossil fuels.	PROGRESS	Board commitment to investing up to $250 million in opportunities by 2025. $133 million invested to 31 December 2022.
	NEXT STEPS	Identify further opportunities that are expected to deliver an appropriate risk adjusted return.
Divest from pure-play thermal coal producers.	PROGRESS	Prime focus thermal coal producers are being excluded from investment.
	NEXT STEPS	Review exclusions regularly and monitor for compliance.
Amend passive benchmarks to reduce greenhouse gas emissions in Australian and international listed equity holdings.	PROGRESS	Optimisation of passive benchmarks is still being explored. Primary focus thermal coal producers have been excluded.
	NEXT STEPS	Monitor situation to determine appropriate action.
Analyse physical impact risks of the portfolio.	PROGRESS	Physical risk assessment and transition risk profiling for unlisted infrastructure completed in 2022.
	NEXT STEPS	Assess physical risk across other asset classes.

Mandate design and asset manager selection		
Update guidelines for external mandates to incorporate climate change expectations.	PROGRESS	Guidelines developed for reporting.
	NEXT STEPS	Ongoing manager engagement on expectations and trends.
Incorporate climate metrics into in-house management processes.	PROGRESS	Emissions profile of internally managed portfolios are measured and monitored.
	NEXT STEPS	Ongoing monitoring and reporting.
Evolve external asset manager selection criteria to incorporate climate goals.	PROGRESS	External asset manager selection criteria was enhanced during 2022.
	NEXT STEPS	Ongoing review of selection criteria.
Enhance external asset manager review criteria to incorporate climate goals.	PROGRESS	External asset manager review criteria was enhanced during 2022
	NEXT STEPS	Ongoing review of manager review criteria.
Review asset managers and mandates that are not prepared to commit to TelstraSuper's climate change objectives.	PROGRESS	Regular engagement with external asset managers on their commitment to our objectives.
	NEXT STEPS	Ongoing review of new and existing managers to confirm alignment with our objectives. Continued appointment reviewed if necessary.

Engagement and stewardship		
Engage with external asset managers, encouraging adoption of net zero emissions by 2050 goal.	PROGRESS	Materially achieved and ongoing.
	NEXT STEPS	Ongoing engagement.
Engage with highest risk companies via CA100+ and through direct engagement.	PROGRESS	Achieved and ongoing. See page 31.
	NEXT STEPS	Ongoing engagement.
Participate in public policy advocacy (ACSI, IGCC, PRI).	PROGRESS	Achieved and ongoing. See page 30.
	NEXT STEPS	Ongoing participation.
Align proxy voting outcomes on climate-related resolutions.	PROGRESS	Proxy Voting Policy updated to incorporate guidelines on matters to be considered when voting on the climate action plans of the companies we invest in.
	NEXT STEPS	Application of guidelines when voting.
Engage with service providers to encourage adoption of net zero emissions by 2050 goal.	PROGRESS	Many key service providers have adopted a net zero emissions goal.
	NEXT STEPS	Ongoing engagement with service providers.

Disclosure		
Disclose in alignment with TCFD recommendations across all asset classes.	PROGRESS	This report represents the second TCFD disclosure report.
	NEXT STEPS	Ongoing disclosure.
Collaborate to improve industry-wide disclosure and action.	PROGRESS	TelstraSuper supports the Investor Agenda and IGCC. Our CCAP was a global case study in 2022.
	NEXT STEPS	Ongoing support of industry initiatives.
Incorporate our climate change actions and outcomes into member communication and engagement.	PROGRESS	Regular updates are provided via our Sustainable Investment Bulletin and Climate Report.
	NEXT STEPS	Ongoing communication to members.

Working towards a net zero portfolio by 2050

$250 million

committed to low carbon opportunities by 2025

23%

reduction in carbon emissions of listed assets*

Rated as a 2022 ESG Leader by *Rainmaker*

Climate Change Action Plan selected as a global case study by *The Investor Agenda*

Our corporate operations have been carbon neutral since 2021

Enhanced criteria to assess net zero commitment and climate risk exposure of our external managers

Increased our engagement with high emitters across our portfolio

Implemented guidelines for 'say on climate' voting

* As at 30 June 2022

Governance

03

As a long-term investor, TelstraSuper believes it is in the interests of our members to assess and manage the economic risks arising from climate change. We also aim to participate in emerging investment opportunities arising from the transition to lower carbon intensity. Making sure we have the appropriate governance structure to oversee our approach is core to our strategy.

Roles and responsibilities

Board

Our Board has identified climate change as a material investment risk and adopted the CCAP in February 2021. The Board determines the overarching investment beliefs and strategy for the fund. It seeks to ensure that climate change and sustainability more broadly are incorporated into TelstraSuper's business and investment strategies.

The Board Risk Committee has responsibility for the oversight of risk assessment and management of material risks for the fund. In determining which risks are material, several factors are considered, including the likely impact, the potential for financial loss, the resource required and the potential for reputational impact.

Investment Committee

The Board has delegated responsibility for ensuring TelstraSuper's investment policies are implemented across all asset classes to the Investment Committee. The Investment Committee requires thorough due diligence processes to be applied on all new investments and the regular monitoring of asset managers following their appointment. The consideration of material ESG risks when making investment decisions is reviewed as part of the asset manager appointment and review process. Climate change is deemed a material ESG risk.

Responsibility for implementing due diligence and review processes concerning ESG matters, including climate change, rests with the Chief Investment Officer (CIO) and the Head of Sustainable Investment.

Investment teams

We seek to ensure that all asset managers are required to consider material ESG matters, which may include climate change, in the investment decision-making process. This requirement is generally embedded into Investment Management Agreements with our external asset managers.

The Sustainable Investment team assists internal investment teams in implementing TelstraSuper's Sustainable Investment Policy. The Head of Sustainable Investment leads this team and reports directly to the CIO, alongside asset class heads.

Achievement of the CCAP actions is built into all investment team leaders' performance objectives.

External service providers

We engage a range of external service providers to provide advice and guidance concerning climate change. These include asset consultants and industry bodies such as the Australian Council of Superannuation Investors (ACSI) and the Investor Group on Climate Change (IGCC). Services provided include research, company engagement and proxy voting advice.

> "To continue delivering strong long-term returns for members, we measure and manage climate risk, whilst also seeking new low-carbon investment opportunities."
>
> **Chris Davies, Chief Executive Officer**

Policies

Climate Change risk is captured within the TelstraSuper Sustainable Investment Policy along with other ESG risks. This Policy:

- recognises that superannuation is a long-term investment
- states that TelstraSuper aims to maximise risk-adjusted returns over the long term and will not pursue strategies that put the sustainability of long-term returns at risk
- requires the analysis of material ESG factors to be incorporated into the investment processes of our appointed asset managers
- is regularly reviewed at least every 2 years to ensure it remains appropriate.

Our climate change beliefs, overarching goals and actions are detailed in our CCAP.

Culture and behaviour

During 2022, TelstraSuper's Sustainable Investment team participated in several events that promoted climate change risk management. These included the PRI in-person 2022 Conference; the Goldman Sachs Carbonomics Conference; and a Pension Bridge Climate Change Mitigation Panel, where the Head of Sustainable Investment presented on our role as investors in mitigating climate change. We also participated in the IGCC 2022 Summit and regular IGCC Working Group meetings. As described elsewhere in the report, TelstraSuper is a support investor of the Climate Action 100+ working group for South32.

Members of the broader investment team also attend various briefings with subject matter experts covering climate-related and sustainable investing matters including climate and carbon risk; biodiversity; climate-related financial reporting; sustainable finance; impact investing and renewable energy investing.

In June 2021, TelstraSuper's business operations were certified carbon neutral by Climate Active for the 2020/21 financial year via the purchase of carbon offsets which supported the following projects:

- Fighting Fire with Fire project (Indigenous fire management in Northern Territory)
- Rainforest Protection (South America, Oceania and Africa)
- Winds of Change project (wind power in India).

The investment made by TelstraSuper to purchase the carbon offsets and be certified carbon neutral was approximately $25,000. Find out more about these projects here.

As the carbon offsets purchased were in excess of those required to abate TelstraSuper's Scope 1, Scope 2 and Scope 3 emissions from the 2020/21 financial year, the balance was carried forward to cover future years. At the time of publication, TelstraSuper was undertaking its annual measurement process for the 2022 financial year, with the next technical assessment due in February 2024. Refer Climate Active Public Disclosure Statement for more information.

Strategy

Climate change poses investment risks and opportunities

The scale and complexity of climate change poses risks and opportunities for our investment portfolios, potentially affecting long-term investment performance and returns.

The physical impacts of natural perils, rising sea levels, heatwaves and droughts that may be influenced by climate change, pose potential investment risks to assets held by TelstraSuper.

Stringent climate policies, new cleaner technologies, and changing market sentiment may affect economies and business models, which in turn can provide both risk and opportunity for our investment portfolios.

During 2022, material shifts in government policy with respect to fossil fuel industries, combined with flagged regulatory changes to climate change policy, has heightened the risk of investment in “exposed” industries. Regulators and NGOs have also increased their scrutiny of corporations and superannuation funds with respect to climate change.

As a long-term investor – with our members’ money invested across global economies, companies and sectors – we recognise our responsibility to ensure climate change risks are identified, understood, and mitigated as far as possible. We believe that developing resilient investment strategies, while aiming to benefit from the shift to a more sustainable, low-carbon economy, is in our members’ best interests.

Risks and opportunities for TelstraSuper – Potential short, medium and long-term impacts

Transition risks	Description	Current	2030	2050
Government policy change (including carbon price)	Acceleration or poor implementation of policies aimed at constraining emissions-intensive activities – may impact demand/volume/revenues for portfolio investments. It can also result in higher input costs and/or market supply/demand volatility.	Medium risk	Medium risk	High risk
Changes to regulations and/or compliance requirements	Increasing and changing environmental and reporting regulations may lead to higher input/output costs for real assets.	Medium risk	High risk	Medium risk
Change in member sentiment (Reputation risk)	Actions taken by TelstraSuper today will influence our ability to retain and attract members. In general, members expect climate change to be addressed while at the same time protecting investment returns. Awareness of climate change is likely to increase this decade.	Low risk	Medium risk	Medium risk
Stakeholder scrutiny (Reputation and litigation risk)	Scrutiny from external stakeholders (Regulators, NGOs, industry bodies) will likely increase as community expectations shift. The risk of climate litigation will increase for those who fail to act.	High risk	High risk	High risk
Development of low carbon technologies /solutions	Companies and/or assets that fail to adopt new technologies or decarbonise (transition) may face reduced demand for products and services, substitution, diminishing economic returns, loss of value or asset stranding. Companies will also face near term costs associated with the deployment of new technologies or R&D. Market share may also be impacted long term. TelstraSuper needs to identify, assess, and manage this risk across all asset class portfolios.	Medium risk	High risk	High risk
Change in capital market requirements	Companies and/or assets that fail to transition may also face difficulties accessing capital or an increased cost of capital. This may similarly apply to insurance.	Medium risk	High risk	High risk

Key Low risk Medium risk High risk

Physical risks	Description	Current	2030	2050
Acute hazards	Increased frequency and severity of extreme weather events such as bushfires, flooding and cyclones can lead to higher costs of business because of disruption to operations or supply chains, impacts to employee health and safety, damage to property/assets. These events may also lead to increased costs associated with the availability and price of insurance.	High risk	High risk	High risk
Chronic hazards	Gradual changes such as increasing/decreasing average temperatures and rainfall or sea level rise will have lower impacts in the short to medium term but need to be managed over the longer term. TelstraSuper must engage with companies to understand adaptation and resilience to longer-term physical climate changes.	Low risk	Low risk	Medium risk

Opportunities	Description	Current	2030	2050
Resource and energy efficiency	Better management of resources and efforts to increase energy efficiency may reduce operating costs over the medium term and reduce emissions associated with inputs. The profitability of these companies will likely be improved, making them attractive to investors.	Medium risk	Medium risk	Medium risk
Decarbonise existing assets	Companies and assets that lead the transition and make strong efforts to decarbonise will face lower operating costs in the long term due to reduced exposure to carbon pricing and policy/regulatory constraints, reputational benefits, competitive advantage, and potentially increasing market share, leading to a higher asset value.	High risk	High risk	Medium risk
Low emissions energy and technologies	The majority of the energy system will need to transition away from fossil fuels to renewable energy. Developing energy independence by investing in scaled renewable technology may also assist with building resilience to geopolitical risk. Therefore, investment returns for renewables may exceed returns for fossil fuel assets over the medium to long term. TelstraSuper investment portfolios will benefit by actively seeking and increasing exposure to low emissions opportunities.	High risk	High risk	Medium risk
New products and services	New low carbon or zero-emission products and services will likely face increased demand and potential for growth in revenues and value. Companies that innovate and develop new low-emission products and services may improve their competitive position and capitalise on shifting market preferences. These organisations or strategies supporting them may provide new investment opportunities for TelstraSuper.	High risk	High risk	High risk
New asset classes	Investment opportunities in agriculture, sustainable forestry and carbon trading are developing to support decarbonisation. These new asset classes will likely grow in popularity and have the potential to provide investors with attractive returns.	Medium risk	High risk	High risk

Key Low risk Medium risk High risk

Portfolio construction actions

The following portfolio construction initiatives have been undertaken as part of the CCAP.

Thermal coal exclusion

One of the actions proposed and implemented under the CCAP was seeking to exclude primary-focus thermal coal producers from our investment portfolios. These actions are designed to exclude entities where the majority of earnings[1] are derived from thermal coal production. At end of December 2022, this resulted in 19 companies in the ASX and 104 global listed companies being excluded from investment. These companies are no longer eligible for inclusion in TelstraSuper's listed equity investment portfolios managed by both internal and external asset managers.

Invest in transition opportunities

We recognise significant investment opportunities from the transition to net zero emissions may arise. In December 2022, TelstraSuper committed to investing up to $250 million in assets that are expected to be net beneficiaries of climate transition by the end of 2025. Opportunities are likely to exist in the energy, water, transport, and agriculture sectors, in addition to renewable energy and new ancillary services such as electric vehicle charging stations, cleaner transportation, and industrial efficiencies.

Over time we aim to increase our allocation to companies and assets that generate "green" revenues and those that enable or speed up the pace of change. These opportunities may be across any asset class, and we will target investment returns that are consistent with the benchmark for the asset class.

Over the past 18 months, TelstraSuper has invested more than $130 million in climate-related opportunities, which to date has delivered a positive nominal return to members. These include an investment in Tilt Renewables, an allocation to the Californian carbon allowance scheme and a listed equities quantitative strategy targeting efficient carbon emission management.

Our commitment to climate transition investment aligns with our support of the UN Sustainable Development Goals. In our view, Tilt Renewables and the Californian carbon allowance investments contribute to the goals highlighted below:

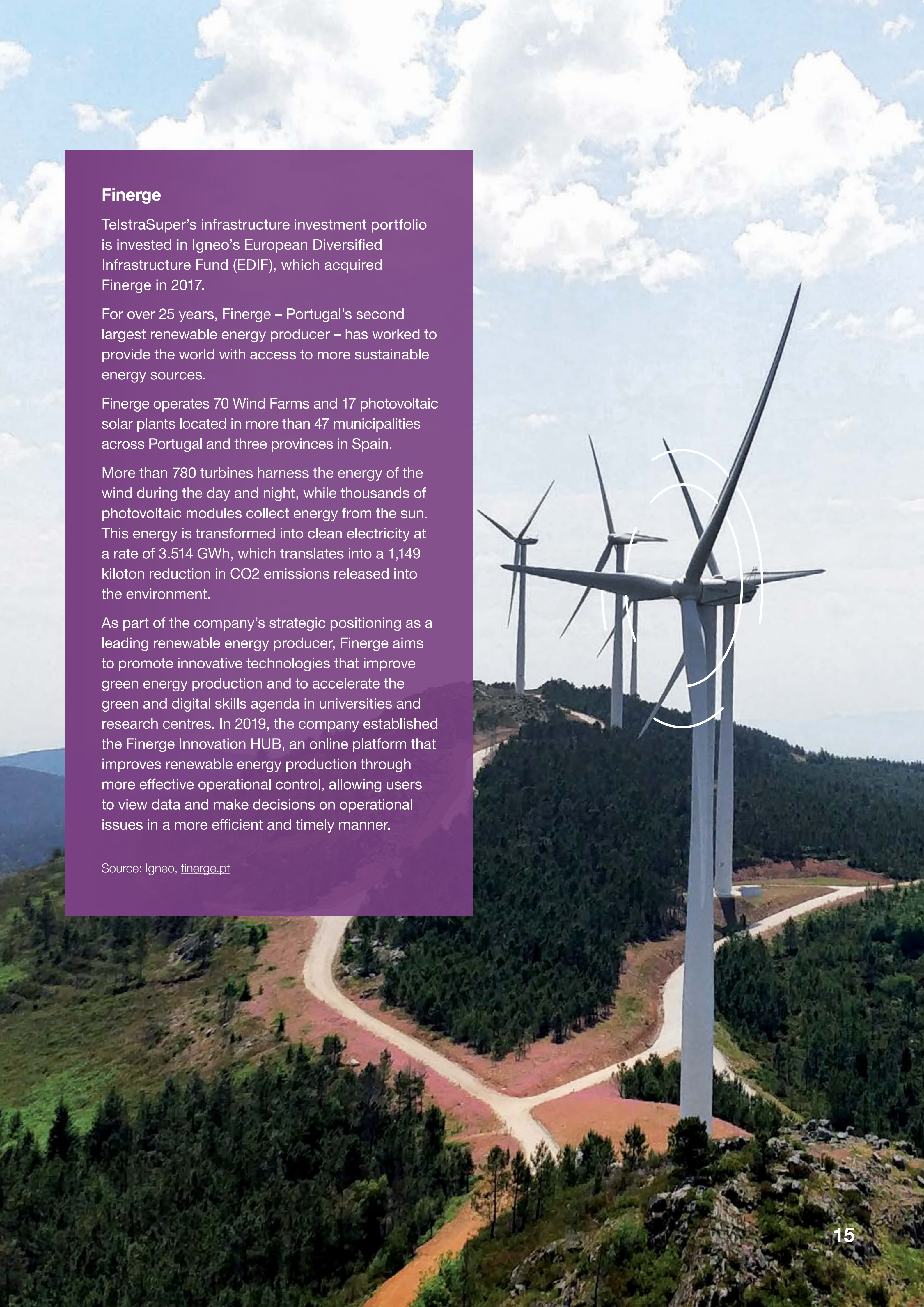
We also hold interests in several existing investments in renewables outside of Australia, including:

- Finerge – See asset profile on the page 15
- Atlas Renewable Energy – See page 16
- a portfolio of wind and solar generation facilities across the United States of America serving as a platform for the continuing acquisition and management of wind and solar projects in North America
- a global developer and operator of utility-scale solar projects across France, Italy, Spain, Puerto Rico, Japan, Chile, the United Kingdom and South Africa and projects in construction and development stages in Japan, Puerto Rico and Chile
- the third-largest generator of onshore wind energy
- a portfolio of 34 wind farms in the United Kingdom.

Investment portfolio resilience

The ability to identify and mitigate exposure to physical risk is assessed as part of our asset manager review process. An assessment of physical risk across real assets was undertaken during 2022. See the risk management section of this report.

[1] Defined as above 50% of earnings linked to thermal coal production.



Finerge

TelstraSuper's infrastructure investment portfolio is invested in Igneo's European Diversified Infrastructure Fund (EDIF), which acquired Finerge in 2017.

For over 25 years, Finerge – Portugal's second largest renewable energy producer – has worked to provide the world with access to more sustainable energy sources.

Finerge operates 70 Wind Farms and 17 photovoltaic solar plants located in more than 47 municipalities across Portugal and three provinces in Spain.

More than 780 turbines harness the energy of the wind during the day and night, while thousands of photovoltaic modules collect energy from the sun. This energy is transformed into clean electricity at a rate of 3.514 GWh, which translates into a 1,149 kiloton reduction in CO2 emissions released into the environment.

As part of the company's strategic positioning as a leading renewable energy producer, Finerge aims to promote innovative technologies that improve green energy production and to accelerate the green and digital skills agenda in universities and research centres. In 2019, the company established the Finerge Innovation HUB, an online platform that improves renewable energy production through more effective operational control, allowing users to view data and make decisions on operational issues in a more efficient and timely manner.

Source: Igneo, finerge.pt

Atlas Renewable Energy

TelstraSuper's Alternatives investment portfolio has an investment in a Global Infrastructure Partners (GIP) fund that acquired a pan-Latin American renewables platform, Atlas Renewable Energy ("Atlas"), in 2022.

Atlas is at the forefront of renewables development in Latin America, with 2.2GW in solar assets in operations or under construction across Brazil, Chile, Mexico and Uruguay – making it the second largest renewables developer in the region.[1] The company primarily supplies renewable energy to large commercial and industrial clients under long-term bilateral agreements, supporting those businesses in their process of decarbonising their production chains and helping Latin America achieve sustainable economic development. The company also has a 6GW+ pipeline in Latin America and Spain, underpinning its prospects for near-term growth.

The company has been a pioneer in driving new trends in Latin American markets. On the commercial front, Atlas was the first to structure a USD-denominated Power Purchase Agreement (PPA) in Brazil, effectively establishing an important precedent and opening a new market for both industrial partners and other developers.

The company has also been able to secure PPAs with inflation linkage, offering compelling protection in the current macroeconomic environment. On the financing front, in December 2022, Atlas achieved another "first" by securing the first USD senior project financing provided by local development bank BNDES in Brazil, which will serve as a springboard for the next wave of renewables development in the country.

Atlas won a number of regional and global industry awards in 2022 across several criteria, and is a regional leader in ESG. The company's commitment to high ESG standards is reflected through its various community outreach programs, a diverse workforce with around 40% female employees[2], and the majority of its construction workforce sourced from local communities.[3] The company estimates that its operating projects have avoided 1.9 mton of CO2 emissions since their initial fleet of assets began operations. The company boasts a strong safety performance record, with more than five million man-hours of construction execution work during 2022, without a Lost Time Incident.

Atlas was established in 2017. The company is headquartered in Miami and has offices in Sao Paulo, Santiago, Mexico City, Bogota and Madrid. For more information, please see atlasrenewableenergy.com.

[1] GIP, Bloomberg New Energy Finance and other publicly available sources at the time of acquisition

[2] As at 1Q '22

[3] Excluding La Pimienta Solar Plan

Understanding our risks – Scenario analysis

The Taskforce on Climate-related Financial Disclosures recommends that organisations assess the resilience of their investment strategy using different climate-related scenarios or future states, including a 2°C or lower scenario.

Given that forward-looking assessments are required to understand climate change impacts, analysis is needed to:

- assess the potential business and investment implications of climate-related risks and opportunities
- communicate with members and other stakeholders on how we are looking to position our investment portfolio considering climate-related risks and opportunities.

TelstraSuper's investment portfolio is spread across all regions and sectors of the economy. Depending on the scenario, transition and physical risks can potentially impact our assets to different degrees.

In 2022, Frontier Advisors completed an investment portfolio level scenario analysis for TelstraSuper's three largest MySuper investment options – Balanced, Conservative and Growth.

Approach

The analysis uses five alternative scenarios (outlined to the right) over three timeframes – 2040, 2050 and 2060 relative to a base case (BAU).

For each scenario, impacts to Return on Invested Capital (ROIC) were modelled for each asset class to deliver an overall estimated investment portfolio return impact.

The return impacts are based on modelled economic impacts across specific countries and regions. These economic impacts are then linked to earnings and yields and subsequently returns on assets.

Scenario descriptions

Base Case – Business As Usual (BAU)

A scenario where policy action is minimal and is effectively a winding back to policy pathways prior to the Paris Agreement.

Scenario 1: National Determined Contributions (NDCs)

Policy action based upon the aggregate pledges made by countries at the Paris conference in 2015 and adjustments following that (prior to COP-27), with a relatively stable aggregate emissions profile beyond 2030.

Scenario 2: 2°C

Policy action that limits global average temperature rises to 2°C (with 50% probability), which is an aspirational target involving greater effort by most countries compared to current policy settings. Emissions follow an "optimal" pathway.

Scenario 3: 2°C (2030 delay)

Policy action that limits global average temperature rises to 2°C (with 50% probability), but which is delayed until 2030 (prior to which the emissions pathway is similar to the "BAU" scenario). The rate of emissions reduction is relatively rapid after 2030.

Scenario 4: 1.5°C (net zero)

Policy action that limits global average temperature rises to 1.5°C (with 50% probability), which is an aspirational target involving greater effort by most countries compared to current policy settings. Emissions follow an "optimal" pathway.

Scenario 5: BAU (extreme temperatures)

Policy pathway similar to BAU and temperature rises follow the trajectory of the 90th percentile of outcomes in the IPCC estimates.

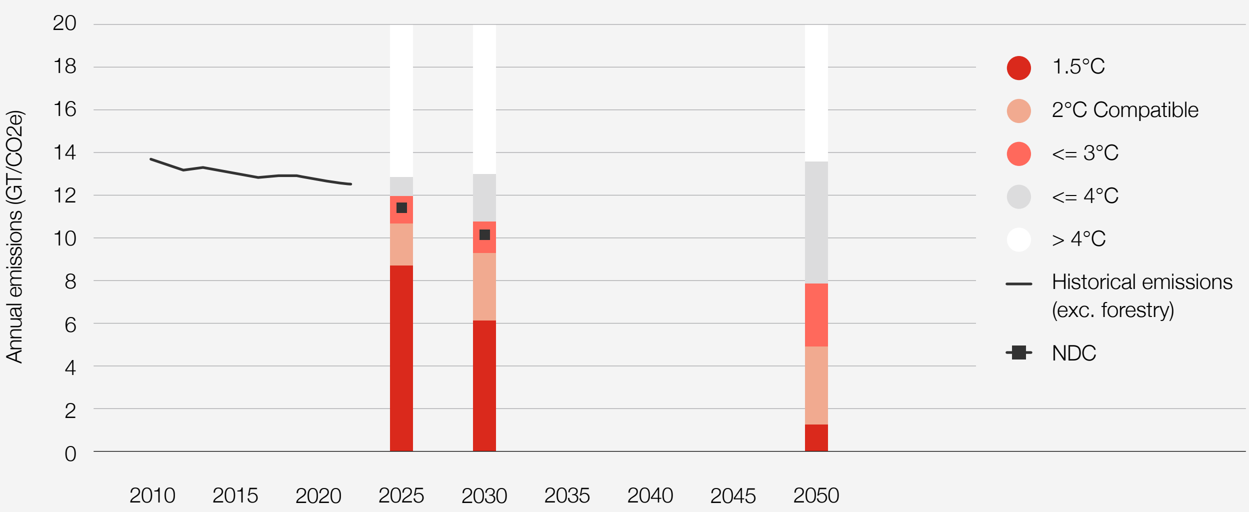
The scenarios are based on the set of scenarios that were developed from the Network for Greening the Financial System (NGFS). Research from the OECD on climate change impacts was also used for some of the modelled parameters.

Sovereign carbon budgets implied by NDCs

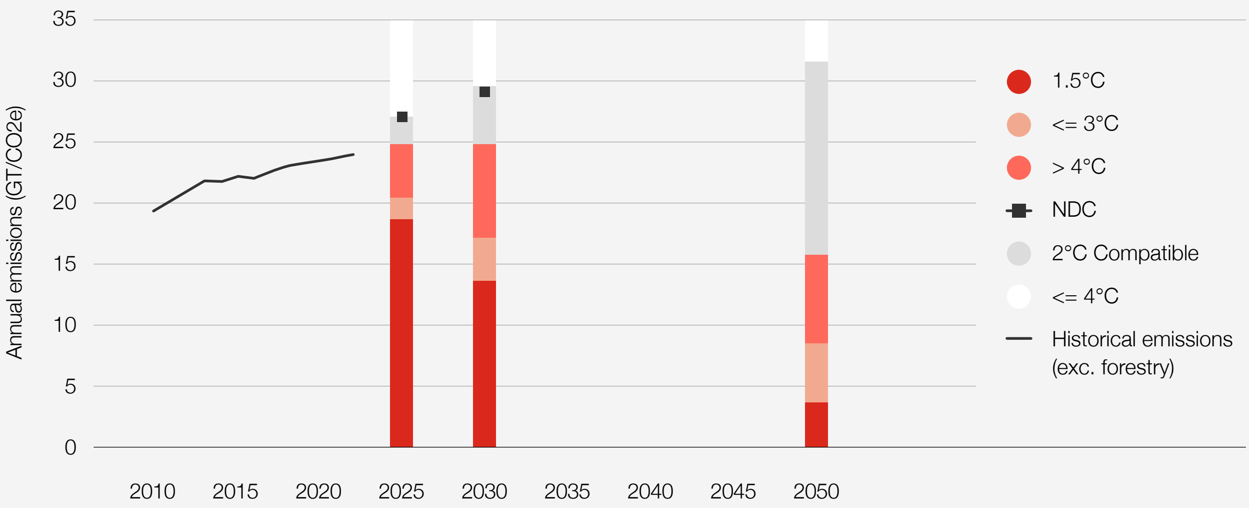
To inform the scenarios, Frontier considered sovereign carbon budgets implied by 2°C temperature targets relative to the Nationally Defined Contributions (NDCs) reached through the Paris Agreement.

2°C and 1.5°C targets require a steep reduction in carbon emissions compared to the modest shift downwards implied by the NDCs. This implies a substantial risk to earnings and asset valuations if there is a policy shift towards a 2°C target or a 1.5°C target. Such an impact could be more intense for Australia and emerging market countries.

Carbon budgets (developed market countries)



Carbon budgets (emerging market countries)



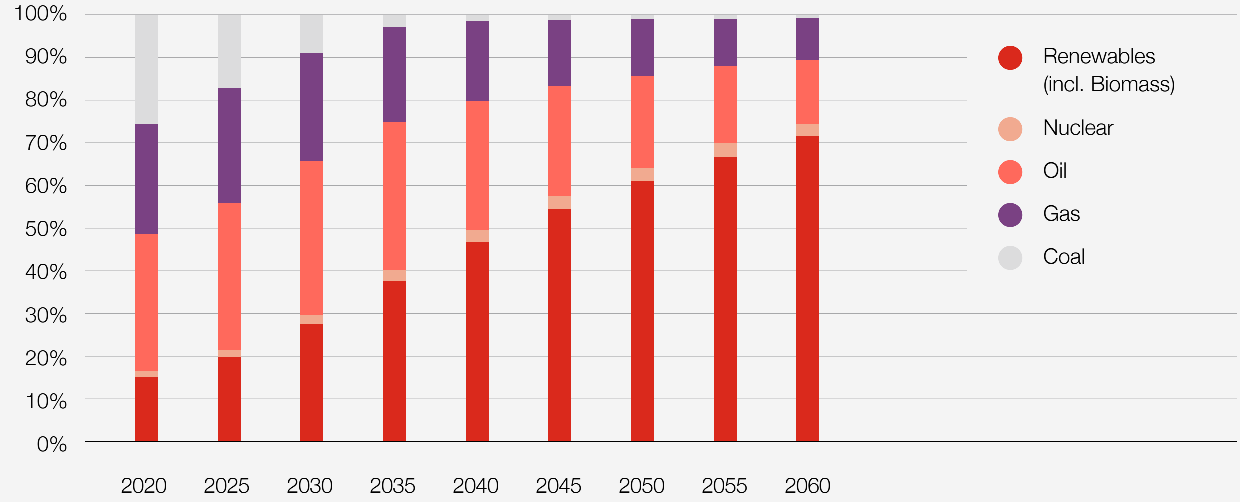
Source: Climate Action Tracker, Frontier

Energy transition risk

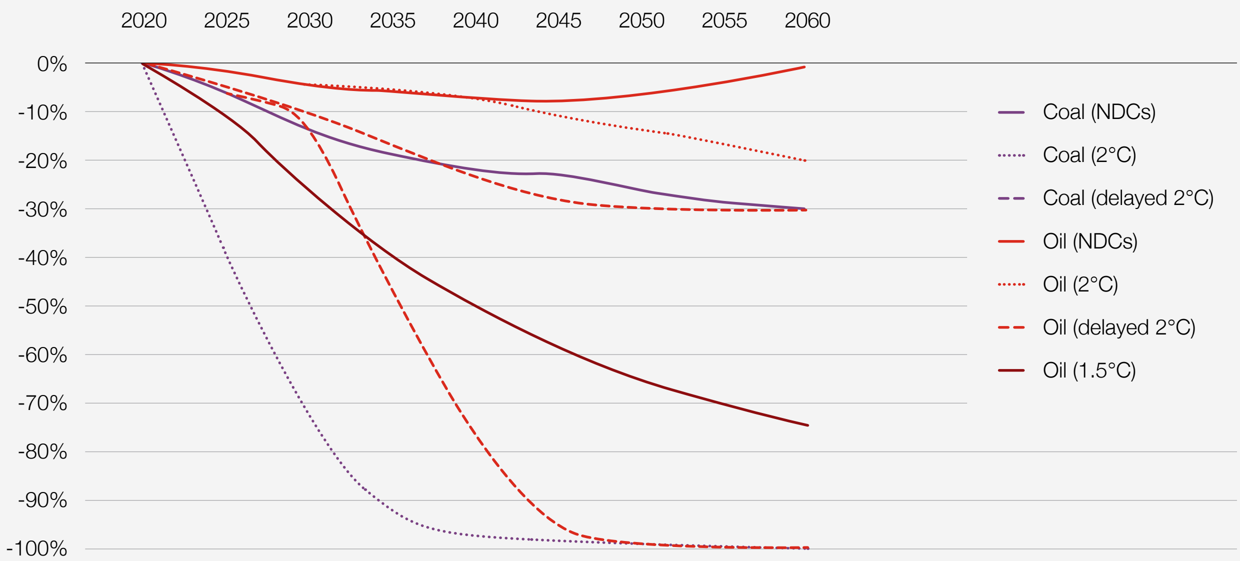
Energy transition risk is also factored into the scenario analysis. Sovereign carbon budgets aligned to 2°C limits imply a fundamental shift in energy source by fuel type. This will impose risks to assets which are dependent on coal extraction over the short to medium term and potentially the oil and gas industries over the medium to long term.

The most recent projections imply a steeper reduction in the demand profile of coal as a primary energy source. This is based on limited development of carbon capture and storage (CCS). Coal demand on this basis is projected to be effectively eliminated under a 2°C global policy target. Oil demand is projected to undergo a substantial downward shift in moving from a 2°C to a 1.5°C policy target.

Global primary energy source – 2°C target (limited CCS)



Projected coal and oil demand v. 'business as usual'



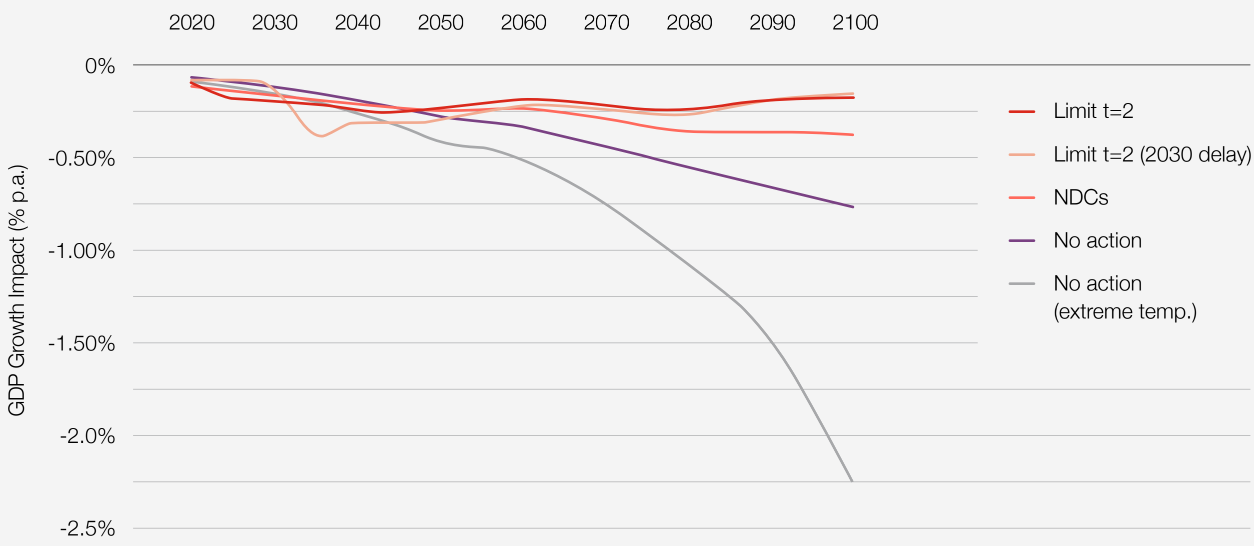
Source: NGFS, Frontier

Physical risk

Consideration is also given to the potential for increasing physical risk in the BAU or No Action scenario. Physical impacts are projected to increase severely under scenarios where there is little or no policy action.

There is of course a high degree of uncertainty in long term projections and, in reality, it is unlikely to be a smooth path. There is broad consensus among specialist modellers that the physical impacts (and the economic costs) are likely to accelerate under a weak policy setting. The impact is projected to be more acute across emerging market regions.

Projected GDP impacts from physical risks (developed market countries)



Source: NGFS, Frontier

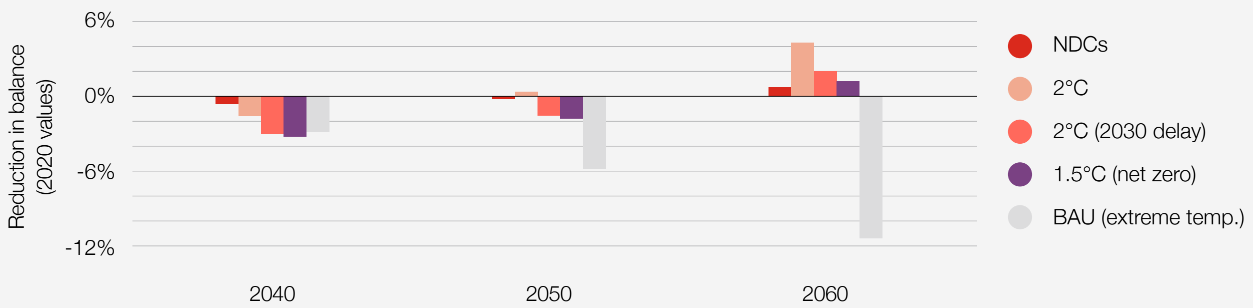
Projected impact of scenarios for MySuper Balanced, Conservative and Growth options

The charts below depict the modelled expected change (% decrease or increase) in balances invested in 2020 at 2040, 2050 and 2060 under each scenario relative to the BAU scenario for the MySuper Balanced, Conservative and Growth options.

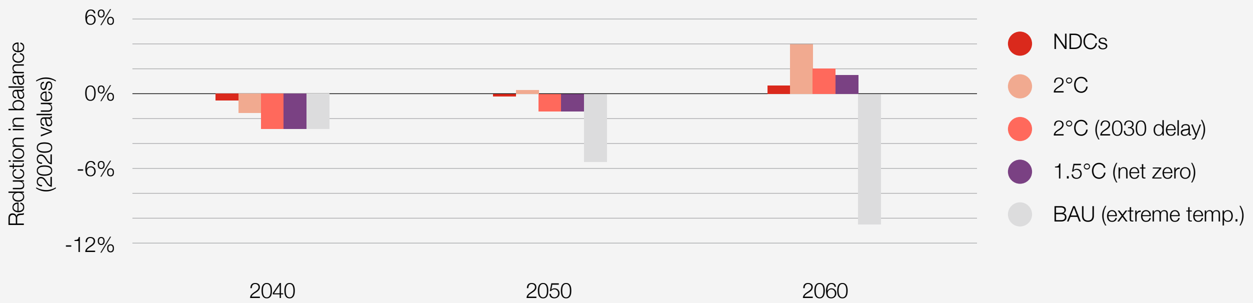
Note that this modelled outcome is based on a range of highly variable and uncertain assumptions. These charts do not represent a forecast of future investment returns and any past performance shown is also not a reliable indicator of future investment returns.

Projected reductions in balances invested in 2020 (relative to BAU)

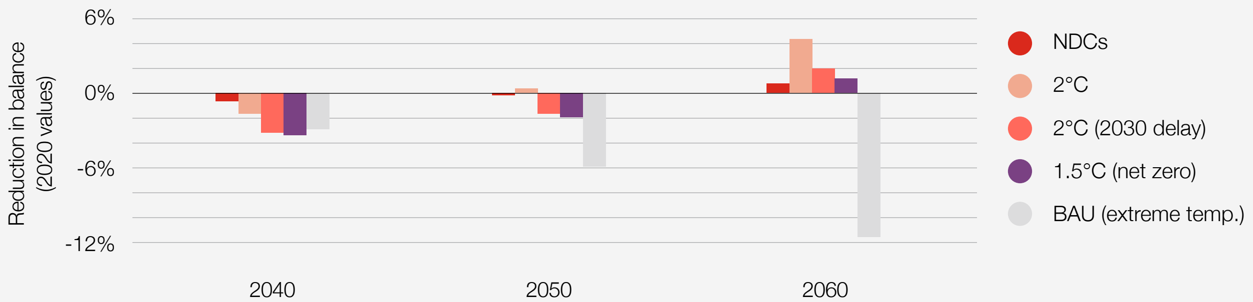
MySuper Balanced Option



MySuper Conservative Option



MySuper Growth Option



Source: Frontier

Observations

The aggregate expected return impacts of each scenario relative to the base case are broadly similar for each investment option when averaged out over 20-, 30- and 40-year periods. However, this may mask the trend of offsetting impacts.

Risk mitigation impacts are likely to be more significant over the first 20 years under Scenarios 2, 3 and 4 and then abate where there is a policy adjustment to lower emissions.

Physical impacts are expected to be increasingly more significant after 2040 and their cumulative impact may accelerate, particularly for scenarios with lighter policy responses.

As a result of energy transition risk, individual portfolio holdings can be more directly and severely impacted, with portfolio outcomes potentially enhanced by taking specific actions within the portfolio's asset classes.

Conclusion

The key takeaway from the analysis is that for most scenarios, there is expected to be a marginally negative return impact relative to the BAU scenario for the three investment options analysed, until 2050, without active investment portfolio allocation decisions that could partially offset these impacts. Looking out to 2060, all scenarios other than the BAU (extreme temperature) are expected to result in improved returns as climate ambitions under Scenarios 1-4 are achieved. This highlights the importance for TelstraSuper to be aware of climate risk, build resilience where possible across our portfolio and actively invest in appropriate climate-related opportunities.

06

Risk management

Mandate design and asset manager selection

The majority of our investment portfolios are externally managed. We conduct a thorough risk assessment on each asset manager before their appointment and continue to monitor their performance through an ongoing review and reporting process.

The asset manager appointment process includes a detailed analysis of how each manager is managing and addressing ESG matters, including climate change. This information is used to rate each asset manager's ESG integration capability.

During 2022, we continued to build on our internal climate risk assessment capabilities to enable more informed discussions with asset managers. A key focus was engaging with our external infrastructure and property asset managers on how climate risk exposures (transition and physical) are assessed and how risks are managed and mitigated on an ongoing basis.

More information on the specific approach for different asset classes is outlined below, including our approach to managing climate risks within our internally managed portfolios.

Listed equities (internally managed)

As at end December 2022, TelstraSuper had around $5.4 billion invested in ASX listed companies and around $5.4 billion invested in companies listed on international stock exchanges, representing 45% of total assets under management. Of this, around $1.4 billion is managed by our internal Australian listed equities asset management team.

Climate change is potentially a significant risk for listed companies. Understanding how investee companies manage this risk is important. Therefore, we expect companies to proactively understand and manage climate change risks by setting decarbonisation commitments, implementing plans and disclosing their progress against them.

Using an internally developed framework, our in-house Sustainable Investment team works with internal investment portfolio managers to analyse ESG factors, including climate change. This framework assesses climate risk depending on the industry sector. Both the company's exposure to climate risks and its management of these risks are considered.

Some of the actions we take to understand climate risk exposure include:

- analysing the carbon emissions and intensity of individual companies and investment portfolios and measuring relative performance against peers and relevant benchmarks
- assessing individual company transition risk (including the risk of asset stranding)
- engaging with companies to encourage better management of climate risk, as well as short, medium and long-term target setting
- encouraging best practice disclosure through the adoption of the TCFD.

In addition to our internal research, we also subscribe to external ESG and carbon risk rating data.

Our analysis is used to inform discussions with our internal equities investment team and our investee companies.

As we develop our assessment processes further, we expect to take a more active stance concerning investment portfolio construction.

Listed equities (externally managed)

Most of TelstraSuper's listed equities investments (around 87%) are managed by external asset managers. Importantly, TelstraSuper maintains responsibility for setting investment guidelines.

As with all asset classes, we seek to ensure that our external listed equities asset managers consider material ESG matters as part of their investment processes.

A key focus of our engagement program during 2022 centered around our expectation that managers adopt the disclosure recommendations of the TCFD.

Alternatives – Private markets

As at end December 2022, our private markets investment portfolio represented around 4% of total assets under management. These investments are all managed externally, with asset manager selection, monitoring and oversight conducted by our internal Alternatives Investment team.

The Sustainable Investment team works with the internal investment team to formally assess each asset manager's approach to ESG as part of due diligence. The climate change risks and opportunities specific to the investment are assessed as part of this process.

During 2022, TelstraSuper initiated the collection of carbon emissions data from our alternatives asset managers in partnership with Burgiss, which has developed a data collection platform. The initial data received covers around 35% by number of the underlying private equity entities that TelstraSuper has invested in. The data received has been mainly estimated and is subject to future variation as data collection and estimated methods are enhanced.

Diversified Fixed Income and Alternative Debt

As at end December 2022, TelstraSuper had around $3.8 billion invested in diversified fixed income and alternative debt assets, representing 16% of total assets under management. Of this, around $0.6 billion is managed by our internal fixed income asset management team.

Climate change is potentially a significant risk for companies that issue debt securities. Understanding how issuers manage this risk is important. Therefore, we expect debt issuers to proactively understand and manage climate change risks where material, by setting decarbonisation commitments, implementing plans and disclosing their progress against them.

The internal fixed income asset management team is able to access the internal ESG research undertaken for Australian listed companies when considering climate risk as part of its investment decision making process for the domestic issuer fixed income portfolio.

For the investment portfolios that are externally managed, asset manager selection, monitoring and oversight is conducted by the internal fixed income team. Before appointing a new asset manager, our internal fixed income team, supported by the Sustainable Investment team, assesses how the external asset manager incorporates the analysis of material ESG risk factors, including climate change, in into its investment process.

In 2023, TelstraSuper's CCAP provides that the carbon emissions profile/footprint of the cash and fixed income investment portfolio will be measured.

Real Assets – Property and infrastructure

As at end December 2022, TelstraSuper had around $3.3 billion invested in property and around $1.6 billion in infrastructure assets, representing 14% and 7% respectively of total assets under management. These investment portfolios are externally managed, with asset manager selection, monitoring and oversight conducted by TelstraSuper's real assets investment team.

Before making investments in real assets or appointing a new asset manager, our internal team, supported by the Sustainable Investment team, assesses material ESG risk factors, including climate change. Risks are reviewed through a formal due diligence process which requires asset managers to complete an ESG questionnaire, followed by direct engagement to discuss the findings. This process improves our understanding of the asset manager's approach to considering ESG issues and climate change.

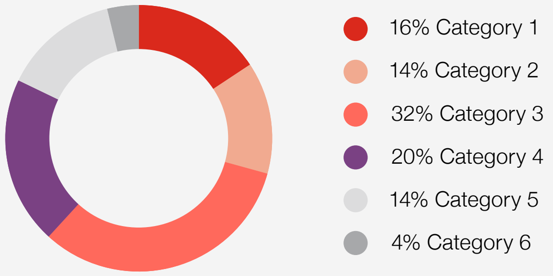
In 2022, we undertook a physical and transition risk assessment of our unlisted infrastructure assets.
See pages 25 – 27 for further detail.

Unlisted infrastructure transition risk assessment

In 2021, TelstraSuper developed a transition risk categorisation framework (see below) to identify the degree to which our unlisted real assets are exposed to climate transition risk. As part of the infrastructure portfolio risk analysis undertaken in 2022, external asset managers were requested to categorise assets in line with the framework to establish a view of the transition risk across our current unlisted infrastructure portfolio. Key findings were:

- 30% of assets by value fall within categories 1 or 2, where fossil fuels are the primary source of revenue or the asset is a key part of the fossil fuels value chain, meaning repurposing or significant adaptation may be required in the future
- 53% of assets by value fall within categories 3 and 4. These assets are typically able to readily decarbonise, however may be subject to revenue shifts from market preferences
- 14% of assets by value have the potential to benefit as the economy transitions to lower carbon.

TelstraSuper unlisted infrastructure value % by transition risk category



The analysis highlights that TelstraSuper needs to consider the weighting of assets within categories 1 and 2 when formulating future portfolio construction and making asset allocation decisions. It also highlights the need to understand the work that appointed asset managers have undertaken to determine whether individual assets are able to transition to a lower carbon environment.

Transition risk categorisation framework

Category 1	Fossil fuels are the primary fuel source and source of revenue. High emissions intensity – generating by scope 1 emissions.
Category 2	In the fossil fuels value chain. Revenues linked to fossil fuel demand. Repurposing likely required in future.
Category 3	High upstream or downstream emissions potential (scope 3). Potential for volume/revenue impact as result of shift in market preferences.
Category 4	Material scope 2 emissions (high electricity usage). Potential to decarbonise using energy efficiency, fuel switching, renewable energy.
Category 5	Positive revenue impact likely as the economy transitions to low carbon. Increased opportunities due to being a key input or enabler of decarbonisation.
Category 6	Neutral – negligible direct impacts from the transition.

Infrastructure physical risk assessment

In late 2022, TelstraSuper sought to better understand the physical risk profile of our unlisted infrastructure portfolio. External asset managers were requested to complete an assessment of physical risk exposure for each asset managed.

The tables below summarise the findings of the assessment of 43 assets representing 72% of our unlisted infrastructure portfolio by value as at 30 June 2022. Five assets were identified as being at extreme risk of heatwave, flood, water stress or hurricane. The aggregate value of these assets is $88 million, representing 7% of the aggregate unlisted infrastructure portfolio value. As part of our ongoing monitoring of external asset managers we intend to engage the managers of these five assets to keep appraised of asset risk management actions.

Physical risk by number of assets (#)

	Low	Medium	High	Extreme	N/A	Assets assessed (#)
Heatwave	22	12	3	3	3	43
Flood/inundation	18	12	9	1	3	
Winter storm	14	4	0	0	25	
Hurricane/windstorm/cyclone	23	9	7	1	3	
Water stress	18	15	6	1	3	
Wildfire/forest fire/bushfire	29	5	5	1	3	

Physical risk by net asset value ($AUD m)

	Low	Medium	High	Extreme	N/A	Net asset value ($AUDm)
Heatwave	629	180	42	30	104	985
Flood/inundation	416	335	126	5	104	
Winter storm	482	99	0	0	405	
Hurricane/windstorm/cyclone	459	300	85	38	104	
Water stress	566	249	61	6	104	
Wildfire/forest fire/bushfire	713	58	104	6	104	

Unlisted infrastructure – net zero alignment

As part of our physical risk assessment, TelstraSuper also sought to understand the number of unlisted infrastructure assets within our externally managed portfolios that had established targets and strategies to achieve net zero emissions alignment.

The table below captures the status for each appointed infrastructure manager. Key takeaways are:

- 51% of the value of our unlisted infrastructure assets under management have established net zero strategies, with achievement dates commencing from 2025
- Managers A and B need to lift the net zero alignment of their portfolios. Both managers have committed to developing net zero strategies for assets as part of their 2023 asset management plans
- There is considerable work required at some large individual assets managed by Managers C, E and I to develop a net zero alignment strategic pathway.

Infrastructure Manager	Value of assets managed (AUD)	Number of assets managed	Net zero Transition Status
Manager A	$230m	20	24% of assets have a plan to be net zero from 2025 to 2045. The remaining assets are either new or developing a net zero strategy.
Manager B	$231m	8	74% of assets have a net zero target, with the earliest achievement being 2025. Three assets, comprising 25% of the fund value, are establishing net zero targets.
Manager C	$262m	5	80% of assets have net zero targets, with the first achievement being 2030. A shipping port asset, representing the remaining 20% of assets, is developing a net zero strategy.
Manager D	$58m	1	The operator of the asset is establishing a decarbonisation plan.
Manager E	$157m	36	No net zero target established.
Manager F	$227m	9	81% of assets have net zero targets, with achievement commencing from 2023. Two assets, representing 9% of the value of the fund NAV, are developing a net zero strategy.
Manager G	$124m	12	11% of assets have a net zero target. The FY23 asset management plans of the remainder contain goals to explore and develop net zero alignment.
Manager H	$48m	1	Scope 1 and 2 emissions are immaterial. Part of a net zero transition.
Manager I	$19m	1	No net zero target established.
Totals	**$1,356m**	**93**	**As at 30 June 2022**

Selecting asset managers whose goals align with our own

Charter Hall

Charter Hall Group is an integrated property investment and funds management company that uses its expertise to access, deploy, manage and invest equity in core real estate sectors. TelstraSuper has investments managed by Charter Hall that include office buildings, shopping centres, hardware store sites, industrial and logistics properties and telecommunication exchanges.

Charter Hall works in partnership with its customers to deliver meaningful action on climate change, including adaptation and building resilience into assets. The focus is on resource efficiency, clean energy, reducing carbon emissions and responding to the physical and transitional risks and opportunities of a changing climate.

In 2022, Charter Hall brought forward their net zero emissions target by five years to 2025. Renewables are a key component of their roadmap to net zero carbon, with 100% of their workplaces, as well as Industrial & Logistics and Office assets under operational control, now powered by grid-supplied renewable electricity. They have increased solar installation across their portfolio from 4.6MW in FY19 to over 47.8MW (as at December 22). In addition, Charter Hall signed a long-term Power Purchase Agreement (PPA) with global energy provider Engie. The PPA will provide 151GWh of new wind and solar power annually to 152 assets nationwide; the equivalent of powering 26,000 homes with renewable electricity each year.

Charter Hall's Climate Action Goals are:

- Partner with customers and suppliers to reduce carbon emissions in the value chain
- Maintain a highly energy efficient portfolio powered by clean energy
- Strengthen the resilience and adaptive capacity of the portfolio to climate-related impacts
- Accelerate automation and operational performance with technology.

Charter Hall's future climate action targets are:

- Net zero pathway in place for all assets under operational control by 2025
- Climate change adaptation planning in Strategic Asset Plans by 2025
- Net zero carbon (Scope 1 and Scope 2) by 2025
- 100% renewable electricity by 2025 for all Charter Hall assets under operational control
- Establish a Scope 3 target aligned to science-based targets by the 2023 financial year
- Net zero emission developments for office and shopping centre retail by 2030.

Wesley Place

Lendlease

Lendlease is a globally integrated real estate and investment group with core expertise in shaping cities and creating strong and connected communities. Lendlease has been named the world's most sustainable property fund five times in the annual GRESB real estate assessment. TelstraSuper has investments managed by Lendlease in Australia that include retail centres and commercial office buildings. Lendlease's global sustainability target is to not warm the planet by more than 1.5°C and create $250M of social value. Lendlease is committed to only owning, occupying and developing net zero carbon operational assets across the business by 2025, and reaching absolute zero carbon by 2040 without the use of offsets. Lendlease manages funds not only in Australia but also in the US, Singapore, Japan, Italy and the UK.

Engagement and stewardship

As long-term investors, we believe we must act as stewards of our assets and use our influence to promote good behaviour and management of ESG issues.

Collaborative engagement

Engaging on climate change is an integral part of active management and stewardship. Given the volume of our investments and the relatively low control we have as minority investors, we believe we can have a greater influence by joining with other investors to encourage climate change risk management through collaborative initiatives.

In addition to being a signatory to the UN supported Principles of Responsible Investment (PRI), we are members of several responsible investment-related organisations such as the Australian Council of Superannuation Investors (ACSI), the Investor Group on Climate Change (IGCC) and The Responsible Investment Association of Australasia (RIAA). We participate in their working groups and other climate-related investor collaborations, such as the Climate Action 100+.

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

PRI Principles for Responsible Investment

ACSI

Joined Member Council June 2020

riaa Responsible Investment Association Australasia

Investor Group on Climate Change

Member of the Physical Risk and Resilience Working Group

Climate Action 100+ Global Investors Driving Business Transition

Investment portfolio company engagement

The table below outlines the decarbonisation targets of the top 15 emitters in our Australian listed equities investment portfolio (at 30 June 2022). As these companies contribute around 85% of our Australian listed equities investment portfolio's emissions, our engagement is focused on the decarbonisation efforts and climate-related disclosure of these companies.

TelstraSuper met with all but one of these companies referred to in the table above either directly and/or in collaboration with ACSI or Climate Action 100+. Further information on company engagement themes, statistics, and case studies is published in our six-monthly Sustainable Investment Bulletins, available at telstrasuper.com.au.

Company name	% emissions contribution to Australian equities	Net zero (2050) target	Interim target (2025-2030)	TelstraSuper engaged with company	CA100+ engagement target
South32 Ltd.	24%	Yes	2035	Yes^	Yes
Woodside Energy Group Ltd	10%	Yes	Yes	Yes^	Yes
Qantas Airways Limited	8%	Yes	Yes	Yes#	Yes
BHP Group Ltd	7%	Yes	Yes	Yes*	Yes
AGL Energy Limited	7%	Yes	Yes	Yes*	Yes
Santos Limited	6%	Yes	Yes	Yes*	Yes
Origin Energy Limited	6%	Yes	Yes	Yes*	Yes
Bluescope Steel Limited	6%	Yes	Yes	Yes*	Yes
Rio Tinto Limited	3%	Yes	Yes	Yes*	Yes
Incitec Pivot Limited	2%	Yes	Yes	Yes*	Yes
Alumina Limited	2%	Yes	Yes	Yes*	No
ADBRI Limited	2%	Yes	Yes	Yes*	Yes
Woolworths Group Ltd	2%	Yes	Yes	Yes*	Yes
Viva Energy Group Ltd.	1%	Yes	No	No	No
Telstra Corporation Limited	1%	Yes	Yes	Yes*	No

direct engagement, *collaborative group engagement, ^both direct and collaborative group engagement

Carbon Footprinting

Portfolio carbon footprinting plays an important role in monitoring and managing climate risk in our investment portfolio design and construction. This activity is currently performed by the Sustainable Investment Team, assisted by third party providers. Annual monitoring of TelstraSuper's climate and emissions metrics allows us to adjust the investment portfolio as required to maintain the glidepath to our carbon reduction goals. It also means we can estimate our absolute and emissions intensity footprint for the overall portfolio and different asset classes.

Key metrics are tracked and reported to the TelstraSuper Board and Investment Committee as part of the annual update on implementation of the Climate Change Action Plan. Footprinting also helps us identify our highest emitting investments, which in turn gives direction to our stewardship activities. Please see page 30 for information on our stewardship activities.

We recognise, that on its own, carbon footprinting has limitations with respect to providing a complete picture about climate risk exposure. Nonetheless, we consider it important to undertake regular footprinting as we await improvements in the methodologies used to assess emissions.

Proxy voting

Voting is one of the cornerstones of TelstraSuper's stewardship approach. The exercising of our right to vote is one of the most effective tools for holding boards to account and encouraging good governance and improved ESG standards.

We actively consider and vote for all AGM resolutions for our internally managed Australian equities investment portfolios. Each vote decision is determined on a case-by-case basis, considering proxy research where available, the outcomes from engagement meetings and our external asset managers' perspectives.

During 2022, the TelstraSuper Proxy Voting Policy was updated to incorporate guidelines on matters to be considered when assessing investee companies' climate change action plans. When voting on a "Say on Climate" resolution, we will generally consider the following:

- alignment of corporate strategy with the company's climate plan
- disclosures made in accordance with the TCFD reporting framework developed by the Financial Stability Board
- scenario analysis undertaken by the company
- whether any carbon emission reduction targets are aligned with the Paris Agreement
- physical risk management activities
- the company's policy and advocacy activity and its membership of industry organisations
- equitable transition planning and implementation
- alignment of remuneration with achievement of the strategy and goals.

TelstraSuper will also consider the advice of our proxy advisors and other climate change experts who may be engaged by us when determining our vote on climate change matters.

"Say on Climate" Resolutions

During 2021 and 2022, some of Australia's largest companies elected to include "Say on Climate" resolutions at their annual general meetings for shareholders to consider. We support companies with material climate risks adopting this stance as it allows investors to express their views on a company's plans and strategies for decarbonisation.

In late 2021, BHP became the first Australian company to include a resolution for shareholders to consider. This was quickly followed by many other companies, including Rio Tinto, Santos, Woodside and South32, all of which included resolutions at their AGMs during 2022.

As outlined above, when voting on a "Say on Climate" resolution, we consider several aspects a company's climate strategy.

TelstraSuper supported the "Say on Climate" resolutions of BHP, Rio Tinto, Santos and South32, consistent with overall shareholder support of 87% at BHP, 84% at Rio Tinto, 63% at Santos and 89% at South32.

TelstraSuper had several concerns with the climate plan articulated by Woodside and voted against that proposal. Overall, shareholder support for the Woodside climate plan was bifurcated, with 51% of shareholders voting for it and 49% against it.

The concerns we had with the published Woodside climate plan were:

- the medium-term emissions reduction target employed by Woodside heavily relies on carbon offsets
- Woodside has taken a top-down approach to assess the potential for emissions removal or reduction and is yet to consider individual assets within its portfolio
- the $5bn commitment to investing in new energy opportunities and projects that align with the Paris Agreement is yet to identify tangible projects or investments and may be practically difficult to employ by 2030
- the climate commitments that Woodside has developed coincide with an enterprise-changing merger with BHP petroleum and significant new investment in the Scarborough and Sangamar projects, creating material competing priorities
- no meaningful work has been done on understanding or planning for Scope 3 emission reduction.

TelstraSuper will continue to engage with Woodside on its climate transition planning either directly or in collaboration with investor groups such as ACSI and Climate Action 100+.

South32

Investor group, Climate Action 100+ has identified South32, a diversified global mining and metals company that TelstraSuper invests in, as one of 16 Australian companies to engage with on its climate transition planning. TelstraSuper is a signatory of ClimateAction 100+ and a supporting member of the South32 investor working group.

During 2022, TelstraSuper engaged with South32 on three occasions – directly and in collaboration with ACSI and Climate Action 100+ – to discuss the company's climate change action plan, which sets out South32's goals, approach and progress with respect to climate transition.

South32 has announced its goal to achieve a 50% reduction in Scope 1 and Scope 2 greenhouse gas emissions by 2035. To achieve this medium-term target, the company is investing in efficiency projects, shifting to low-carbon energy sources, applying low-carbon design principles and evaluating new technologies.

South32 obtained independent "reasonable assurance" on the greenhouse gas emissions data reported in its 2022 sustainability report and, since 2017, has reported annually under the TCFD framework.

As art of our collaborative engagement with ACSI and Climate Action100+, TelstraSuper provided feedback to South32 on the potential to speed up its transition plan by investing in new technologies to assist with advancing operational emissions abatement prior to 2030, relative to the 2035 medium-term target that has been set. Additionally, whilst acknowledging that the guiding principles adopted by South32 for transition planning are aligned with the objectives of the Paris Agreement, we recommended directly to the Chair of the Board that South32 provide more information with respect to the just transition planning it has undertaken for the communities surrounding its Worsley alumina and Hillside aluminium operations.

South32 provided shareholders with the opportunity to vote on its Climate Change Action Plan at its annual general meeting held in October 2022. TelstraSuper voted in favour of the plan, which was also supported by the majority of shareholders, with the resolution being carried with 89.6% approval.

Metrics and targets

Our net zero by 2050 pathway on page 5 outlines the interim timeframes, targets, and milestones in our CCAP.

In 2023, we aim to disclose the emissions footprint of our total investment portfolio (all asset classes) and reduce the emissions associated with our listed equities investment portfolio by 10% on an absolute basis relative to our initial measurement in 2020.

Listed investment portfolio carbon profile

The CCAP commits us to measure and disclose our baseline investment portfolio GHG emissions and report on progress annually. This is to be done using Scope 1 and 2, and Scope 3 on a best-endeavours basis. In 2020, we undertook the first baseline measurement of the carbon emissions associated with our listed asset investment portfolios. We repeated the process in 2021 and 2022. As there is very limited Scope 3 data available, all measurements to date have incorporated available Scope 1 and Scope 2 data only.

TelstraSuper's carbon footprint for our Australian and international listed equities investment portfolios and our listed infrastructure and property investment portfolios were measured using external data from Sustainalytics. This data was supplemented by individual company reporting, where material.

The measurement of our carbon footprint on an annual basis allows us track and report on progress against our fund-level investment portfolio decarbonisation goal.

Absolute carbon emissions

TelstraSuper has set the following absolute carbon emissions reduction goals for listed equities using 2020 as a baseline: ↓ 10% by 2023, ↓ 25% by 2025, ↓ 45% by 2030 and net zero by 2050.

At 30 June 2022, carbon emissions across TelstraSuper's listed asset portfolios had decreased by an aggregate 23% since 2020. This is comprised of a 20% decrease in Australian equities, 32% decrease in international equities and 6% decrease in listed infrastructure, while there was a 26% increase in listed property. TelstraSuper is therefore well placed to achieve its 2023 and 2025 goals.

The reduction in emissions for listed equities can be attributed to a 3% lower strategic asset allocation to equities relative to other asset classes over that time (lower holdings = lower emissions) and a material shift in portfolio construction, away from value-oriented asset managers to those with a growth bias, particularly in international equities, resulting in an overall lower emission profile of investee companies.

The 6% reduction in emissions for listed infrastructure reflects stock selection and lower reported emissions due to COVID-19.

The 26% increase in emissions for listed property is primarily the result of an increase of around 30% of funds allocated to listed REITs following the appointment of two new external managers in late 2020.

Carbon footprint

The carbon footprint (tonnes of carbon dioxide/$AUD million invested) of the listed portfolios has trended lower across all asset classes because of material market valuation increases relative to October 2020.

The carbon footprint of our Australian listed equities and international equities portfolios has decreased by 32% and 35% respectively, since 2020, yet has been relatively steady since 2021. This is an outcome of portfolio construction initiatives and higher valuations.

Carbon intensity

Weighted Average Carbon Intensity (WACI) is a measure that can highlight exposure to carbon intensive companies in TelstraSuper's investment portfolios. It is calculated as the weighted average of the tonnes of carbon dioxide emissions produced per $US million of revenue of the companies within TelstraSuper's investment portfolios. As such, it's a useful secondary metric that is monitored to help understand the investment portfolio's emission complexion.

In contrast to the reduction in absolute emissions and carbon footprint for listed equities portfolios since 2020, the WACI has risen by 30% in Australian equities and 26% in international equities, ahead of the respective benchmarks (+25% ASX100 and +9% MSCI ACWI).

The factors contributing to the significant increases are:

- The WACI of the ASX 100 has increased 25% during 2022 from the index reweighting of BHP and the significant increase in value of two energy companies, Woodside and Santos. In aggregate, these three companies account for all the increase in the WACI for the index.
- TelstraSuper-appointed fund managers for Australian equities have increased their active allocation to the energy sector and other high emitting companies, such as BHP and South32.
- Within our international equities portfolio, TelstraSuper invested in a portfolio of energy companies in 2022 to balance an underweight active position in the sector. This was a short term risk management initiative as a result of European oil and gas supply shortages and consequent price increases created by the Russian invasion of Ukraine. This resulted in an increase in WACI of circa 7% across the international portfolio.
- Since 2020, the passive allocation to the MSCI ACWI benchmark in International equities has increased from 7% to 32% of the portfolio. As the WACI of the MSCI ACWI portfolio is substantially higher than that of the active managers from which the funds were re-allocated, the overall WACI of the portfolio has increased by around 20% from this re-allocation.
- The WACI of listed infrastructure has decreased by 25% since 2020 as a result of active security selection decisions by asset managers, however it increased during 2022. Similarly, the WACI of listed property portfolios has decreased by 15% since 2020, as an outcome of active security selection.

Looking ahead, a reduction in the Australian listed equities portfolio's WACI will require higher emitting companies such as Woodside, Santos and BHP to implement carbon abatement strategies assuming the weighting of these companies in the portfolio remains similar. As such, the energy and materials sectors are a key focus of our stewardship activity.

Metric definitions

	Carbon emissions	Carbon footprint	Weighted Average Carbon Intensity (WACI)
Metric	Total investment portfolio emissions (tCO2e).	tCO2e/AUD$m invested.	tCO2e/US$m revenue.
Description	The absolute GHG emissions associated with the investment portfolio.	The investment portfolio's GHG emissions as a proportion of the value of the portfolio.	The weighted average of individual holdings carbon intensity as a proportion of revenue.
Purpose	Able to track absolute changes in aggregate and individual asset manager investment portfolio emissions.	Suitable for comparison across different asset managers and investment portfolios.	Measures exposure to carbon-intensive companies Recommended for disclosure by the TCFD. This metric is a measure of carbon risk exposure.

Metric calculations include scope 1 and 2 emissions and have been calculated based on equity share (as a proportion of market capitalisation for listed securities, net asset value for unlisted infrastructure and property investments.

Listed investment portfolios carbon metrics

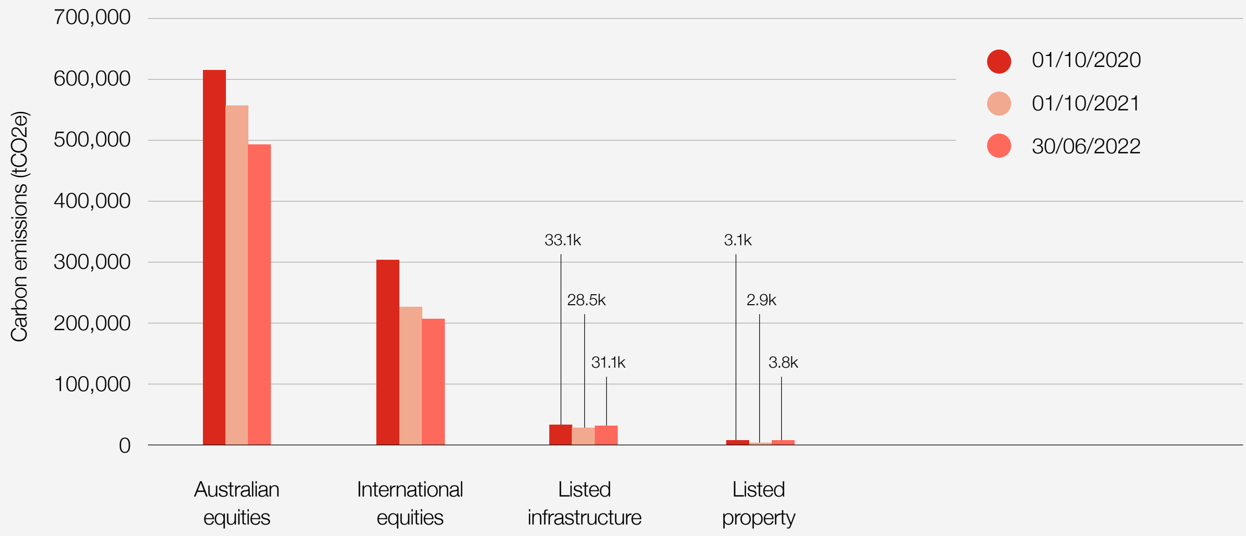
	2020	2021	2022	Δ 2020-2022	Δ 2021-2022
		Australian equities			
Carbon emissions (tCO2e)	615,540	557,813	493,633	-20%	-12%
Carbon footprint (tCO2e/$AUDm invested)	136	97	92	-32%	-5%
WACI TelstraSuper Portfolio (tCO2e/$USm revenue)	236	241	307	+30%	+27%
WACI ASX100 Benchmark	238	222	297	+25%	+34%
Value of Assets Invested ($AUD)	$4,513m	$5,764m	$5,344m	+18%	-7%
Number of Assets			217		
Proportion coverage by value (%)			94%		
Actual data (%)			78%		
		International equities			
Carbon emissions	304,427	227,826	200,944	-34%	-12%
Carbon footprint	59	36	38	-35%	+6%
WACI TelstraSuper portfolio	96	104	121	+26%	+16%
WACI MSCI ACWI Benchmark	141	134	153	+9%	+14%
Value of Assets Invested ($AUD)	$5,121 m	$6,367 m	$5,337 m	+4%	-16%
Number of Assets			1,598		
Proportion coverage by value (%)			93%		
Actual data (%)			84%		
		Total listed equities			
Carbon emissions	919,967	785,639	694,577	-23%	-11%
Carbon footprint	95	64	65	-30%	+1%
WACI	161	169	214	+33%	+27%
Value of Assets Invested ($AUD)	$9,634 m	$12,131 m	$10,681m	+11%	-12%
Number of Assets			1,815		
Proportion coverage by value (%)			93%		
Actual data (%)			81%		
		Listed infrastructure			
Carbon emissions	33,135	28,518	31,148	-6%	+9%
Carbon footprint	190	142	134	-30%	-6%
WACI	674	465	505	-25%	+9%
Value of Assets Invested ($AUD)	$175m	$210m	$233m	+33%	+11%
Number of Assets			49		
Proportion coverage by value (%)			98%		
Actual data (%)			93%		

	2020	2021	2022	Δ 2020-2022	Δ 2021-2022
			Listed property (REITs)		
Carbon emissions	3,115	2,988	3,928	+26%	+31%
Carbon footprint	10	7	9	-10%	+29%
WACI	120	87	102	-15%	+17%
Value of Assets Invested ($AUD)	$317m	$422m	$441m	+39%	+4%
Number of Assets			121		
Proportion coverage by value (%)			96%		
Actual data (%)			75%		

Measurement dates: 1 October 2020, 1 October 2021, 30 June 2022

Source: FactStet, Sustainalytics, company data, TelstraSuper Investment Management Research

Absolute carbon emissions listed portfolios



Unlisted investment portfolio carbon emission profile

In 2022, we measured the carbon emission profile of our unlisted real asset (infrastructure and property) investment portfolios and obtained portfolio and/or asset level emissions data from our external asset managers. The emissions profile of our unlisted real asset investment portfolios is presented below.

We continue to encourage our asset managers to improve asset-level data and transparency, commit to targets and develop emissions reduction plans and initiatives.

Private markets carbon footprint

During 2022, TelstraSuper initiated the collection of carbon emissions data from its alternatives asset managers in partnership with Burgiss, which has developed a data collection platform. The initial data received covers around 35% by number of the underlying private equity entities that TelstraSuper has invested in. The data received has been mainly estimated and is subject to future variation as data collection and estimated methods are enhanced. For this reason, we have chosen not to disclose the carbon profile of this limited proportion of our private markets investments at this stage.

	2022
Unlisted Infrastructure	
Carbon emissions (tCO2e)	310,441
Carbon footprint (tCO2e/$AUDm invested)	229
WACI (tCO2e/$USm revenue)	930
Value of Assets Invested ($AUD) 30 June 2022	$1,356m
Proportion coverage by value (%)	89%
Unlisted Property	
Carbon emissions	8,652
Carbon footprint	3.0
Value of Assets Invested ($AUD)30 June 2022	$2,921m
Proportion coverage by value (%)	99%

Source: External manager reported data. Measurement date: 30/06/2022

Data quality and limitations

The metrics described in this report cover TelstraSuper's investments in listed assets, infrastructure, property and private markets. At present, climate and carbon data availability varies significantly across companies, geographies and asset classes.

While we purchase emissions data from a third-party data provider, this only covers listed assets including Australian equities, international equities, listed infrastructure and listed property, which in aggregate accounted for around 48% of TelstraSuper's total investments at the time of measurement at 30 June 2022. To compensate for this limited coverage, we request our asset managers provide data they may have access to, in particular for unlisted infrastructure and unlisted property investments. Like most investors, TelstraSuper is dependent on the quality and completeness of climate data and of net zero methodologies it can procure for different asset classes. Much improvement in the industry is still needed.

This is particularly the case for private markets where climate data is weaker as investments are in smaller companies or different asset classes that do not have an emissions reporting methodology. To support improvement in private equity reporting, we support the ESG Data Convergence Initiative, led by the Institutional Limited Partners Association (ILPA). We also call on regulators to require these different markets to better report climate data.

TCFD Recommendations Index

The table below aligns our reporting with the recommendations of the TCFD framework. This is TelstraSuper's second year of implementing the CCAP. Our progress against the TCFD recommendations will continue to evolve.

TCFD pillar	Disclosure recommendation	Reference
Governance	Describe the Board's oversight of climate-related risks and opportunities.	*01 Our approach to climate change* on page 4. *03 Governance* on page 10. See also Climate Change Action Plan
	Describe management's role in assessing and managing climate-related risks and opportunities.	
Strategy	Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	*04 Strategy* on page 12.
	Describe the impact of climate-related risks and opportunities on the organisation's business, strategy, and financial planning.	*04 Strategy* on page 12.
	Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	*05 Understanding our risks – Scenario analysis* on page 17.
Risk management	Describe the organisation's processes for identifying and assessing climate-related risks.	*06 Risk management* on page 23.
	Describe the organisation's processes for managing climate-related risks.	*06 Risk management* on page 23.
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	*06 Risk management* on page 23.
Metrics	Describe the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	*07 Metrics and targets* on page 35.
	Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions and related risks.	*07 Metrics and targets* on page 35.
	Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	*07 Metrics and targets* on page 35.

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