

THE STATE OF NET ZERO INVESTMENT

Analysis of \$2.1 trillion managed in Australia

March 2023



Investor
Group on
Climate
Change

Acknowledgements

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Despite some input from investors and IGCC members in this report, the document is an IGCC publication containing IGCC insights. Readers should not infer that any IGCC member or group of members specifically endorses these conclusions or analysis. Various members may have particular views on none, one or more of the insights or analyses included in this paper.

About the Investor Group on Climate Change

The Investor Group on Climate Change (IGCC) is a collaboration of Australian and New Zealand institutional investors focused on the impact of climate change on investments. IGCC represents investors with total funds under management of more than \$3 trillion in Australia and New Zealand and \$30 trillion around the world. IGCC members' beneficiaries include more than 7.5 million people in Australia and Aotearoa New Zealand.

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1. A Message from the Working Group Chairs



Guneet Rana,
Director Responsible Investment,
Colonial First State

Over the past 12 months, since moving on from a world gripped by the Covid-19 pandemic, the war in Ukraine has resulted in soaring fossil fuel energy prices. Russia's invasion has highlighted inescapable links between energy security, affordability and climate change. The global energy crisis is proving to be another reason for accelerating the transition towards clean energy.

It is well recognised that climatic warming above 1.5°C puts at risk the overall stability and resilience of the societal, financial and environmental systems within which investors operate.¹ Our planet's average temperature is already 1.1°C warmer than pre-industrial levels,² and Australia's average temperature is approx. 1.5°C higher.³

In Australia, physical climate risks are already manifesting.⁴ The catastrophic 2019–20 bushfires killed 33 people, burned 19 million hectares and destroyed 3,094 homes, with over \$8 billion in national financial impacts.⁵ In 2022, extreme weather events, including devastating floods across Eastern Australia, reinforce the urgent need to mitigate emissions and build resilience in communities as climate change continues to accelerate.

As long-term custodians of trillions of dollars in retirement funds, investors have a fiduciary duty to deliver long-term returns for their beneficiaries. In the context of climate change, meeting this duty requires both reducing climate-related risks to investments and seeking out investments that will benefit from the transition to a lower carbon economy. Investors increasingly commit to reducing emissions across their portfolios and allocating capital to low-carbon solutions to address these risks.



Claire Molinari,
Head of ESG,
CareSuper

1 See, for example, [G20 Financial Stability Board](#), [International Monetary Fund](#), [Bank of International Settlements](#), [Network for Greening the Financial System](#) and [Council of Financial Regulators](#).

2 Sixth Assessment Report, *Climate Change 2021: The Physical Science Basis* (Working Group 1), 9 August 2021.

3 CSIRO and the Bureau of Meteorology, *The Australian 'State of the Climate 2022' report*, November 2022.

4 J. Lawrence et al., 'Chapter 11: Australasia', in IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability* (Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change), 2022.

5 *ibid.*

Australia has all the potential ingredients to attract investment across the economy necessary to achieve a vibrant, net-zero emissions economy by 2050. Export opportunities will be driven by the increasing demand for existing and new products, including green steel and aluminium, green hydrogen and many critical raw materials.⁶

Although the transition to net-zero emissions offers an enormous opportunity to Australia, it also presents significant risk. Australia's economy is relatively emissions intensive and has higher carbon intensity than other major markets.

Following a change in the federal government in 2022, recent political developments in Australia have provided investors with increased certainty regarding the implications of climate change. These include the passage of the *Climate Change Act 2022 (Cth)*, ensuring Australia's interim emissions reduction target of 43% by 2030 and net-zero emissions by 2050 are enshrined in legislation, a commitment to implement fuel efficiency standards and announced reforms to the Safeguard Mechanism. But there is much more policymakers and investors can do.

Investors have made strong progress in the last year, with developments in investor climate target setting, planning and disclosure. Globally, 292 asset managers, with US\$68 trillion in assets, and the Paris Aligned Asset Owners (PAAO) group, are now publicly reporting their initial objectives, targets and annual progress to transition their investments to net zero.

In Australia, investors are increasingly focusing on developing credible climate action plans that specify their goals, strategic actions and accountability mechanisms to achieve short-term science-based targets. Australian regulators and stakeholders are closely watching climate claims (including a heightened focus on greenwashing) and disclosure.

For Australian investors, decarbonising high-emitting assets and finding green projects that generate strong, stable and sustainable returns remains challenging, but both are critical for managing climate-related investment risk. Despite many challenges, Australian investors are taking action on both fronts.

This report demonstrates how Australian institutional investors are acting on climate risk and opportunities.

⁶ T. Campey et al., *Low emissions technology roadmap*, CSIRO, 2017.

2. Methodology

This report provides insight into climate-aligned investing, opportunities and challenges for asset owners and fund managers in Australia.

The Sample

In September 2022, IGCC surveyed institutional investors (superannuation funds, sovereign wealth funds and asset managers) regarding net zero-aligned investing.

Responses were received from 25 asset owners and 28 asset managers, totalling 53 respondents with a median assets under management (AUM) of A\$28 billion. This report provides the collective views and progress of investors with funds representing more than A\$30 trillion AUM globally and A\$2.1 trillion AUM domiciled within Australia. Therefore, this report covers approximately 60% of the total AUM in Australia.⁷ Many, but not all, survey respondents are IGCC members. As such, we expect that they are more engaged with climate risks and opportunities than Australia's overall investment industry and are generally larger in terms of AUM.

IGCC has undertaken this annual study since 2017 to gather investor insights into how the market is defining and investing in climate-aligned opportunities and barriers to increased investment.

Case Studies

The report's case studies are contributed by some survey respondents and have been only lightly copy-edited for readability. We will be happy to introduce readers to case study authors for more details on the content of those case studies.

Results and analysis

This survey captures investors' progress and the evolution of their approaches to transitioning to a net zero-carbon global economy, including setting targets, aligning assets with net zero, implementing net-zero strategies, deploying capital to climate solutions, and the barriers and challenges to moving faster.

This report includes aggregated data and graphs, investor comments, frameworks and action tips. There are also case studies that bring investors' actions to life.

The survey questions were modelled based on the key asks of the PAII Net Zero Investment Framework, the Investor Climate Action Plans (ICAPs) Expectations Ladder⁸ and previous surveys conducted by IGCC, including the *2021 Net Zero Investment Survey*. With each new survey iteration, the inclusion of year-on-year data allows for further trend analysis of key issues. Some participants also provided further depth to their responses with qualitative commentary.

NOTE: The term "investors" referenced throughout the survey refers to the collective responses of all asset owners and managers combined. In some instances, we aggregate the data for asset owners and managers; in other instances, it is split out. If members require more granular response data, please reach out to secretariat@igcc.org.au, and we would be happy to provide this to our members (while fulfilling our commitment to anonymise responses).

⁷ Total managed funds in Australia is \$3,605 billion according to the [Australian Bureau of Statistics \(ABS\)](#).

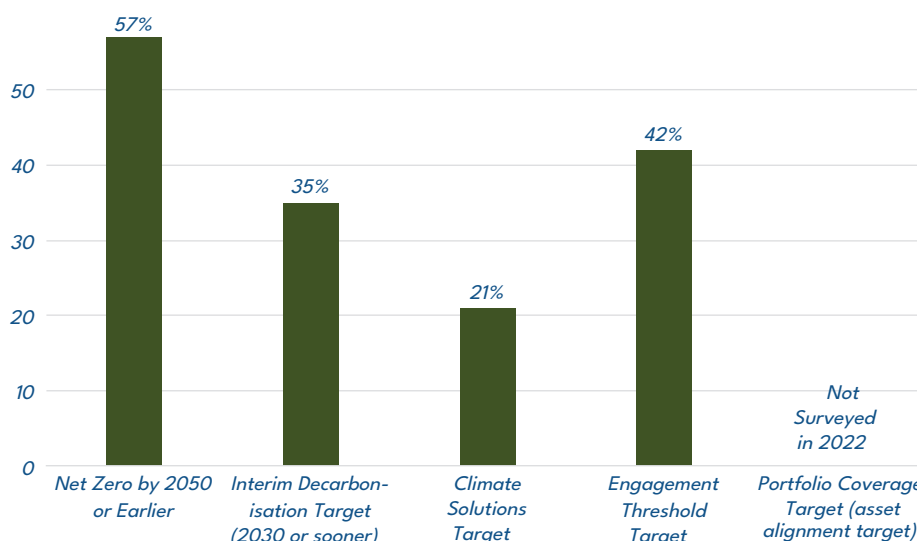
⁸ Paris Aligned Investment Initiative, '[Net Zero Investment Framework, Implementation Guide](#)', March 2021; The Investor Agenda, '[Investor Climate Action Plans \(ICAPs\) Expectation Ladder](#)', May 2021.

3. Executive Summary

How institutional investors are acting on and thinking about climate change investment opportunities and challenges in Australia.

3.1 Climate Targets, Metrics and Measurement

Investor Net Zero Targets (Data compiled from multiple questions.)



Note: These target categories align with the [PAII Net Zero Investment Framework](#). Setting each of the four interim target types above is seen as the most effective way to drive real economy emissions reduction while enabling a practical and rigorous approach that provides accountability for action.

Net zero by 2050 targets

Most investors (70%) have now made public targets for net-zero emissions by 2050, with 57% of those applying to the whole portfolio and 13% applying to part of the portfolio. Asset owners lead the charge, with 80% setting a net-zero target across all or part of their portfolio.

However, mandates set by asset owners tend not to reflect the appetite for a net-zero emissions future, with most mandates not specifying requirements relating to net zero or decarbonisation. Where asset owners have set their net-zero commitments, building structured alignment into mandates may help further operationalise net-zero commitments and provide protection against greenwashing.

Interim targets (e.g., 2025 or 2030)

1. Decarbonisation targets—Interim emission reduction targets (e.g., 50% reduction in emissions by 2030) are quickly catching up with longer term targets, with 35% of investors now having set whole-of-portfolio interim targets. A few investors have set

interim targets over only part of their portfolio (e.g., over assets like infrastructure or listed equities). Investors present interim targets in various formats, including absolute emissions and emission intensity.

- 2. Climate solutions targets**—21% of investors have now set public targets for climate solution investments,⁹ with another 32% actively considering setting targets. Despite the absence of an industry standard to define climate solutions that can be applied across an investment portfolio, investors are working to measure their current allocation and set ambitious quantitative targets ranging from 1% to 10% of AUM by 2030. By comparison, the global group of asset owners that have signed onto the international Paris Aligned Asset Owners (PAAO) initiative appears more advanced in this area, with 55% of signatories having set a quantitative target for increased investment in climate solutions, with target ambitions ranging from 6% to 25% of AUM invested in climate solutions by 2030.¹⁰
- 3. Engagement threshold targets**—Investors are also increasing their focus on ‘engagement threshold targets’ (short-term targets for increasing the proportion of financed emissions subject to climate engagement). Although investors are still in

the early stages of setting these targets across whole portfolios to help drive meaningful climate engagement, many are starting with listed equities. Investors in Australia also indicated that they have high levels of financed emissions subject to climate engagement. By comparison, under the global PAAO initiative, 35% of signatories have established a quantitative engagement threshold target.¹¹

- 4. Portfolio coverage targets**—Investors are working on setting interim ‘portfolio coverage’ (asset alignment) targets to increase the percentage of AUM in material sectors that are ‘achieving net zero’, ‘aligned’ or ‘aligning’ to net zero.¹² Investors increasingly see these portfolio coverage targets as the key driver for achieving net zero and securing emission reductions in the real economy. While most investors (51%) have not yet assessed their alignment baselines, compared to 2021 this is a noticeable focus area. By comparison, 45% of signatories to the global PAAO initiative have set a portfolio coverage target.¹³

Net zero alignment methodologies

Investors continue to use asset-specific methodologies to measure alignment to net zero at the asset level. The Net Zero Investment Framework (reflected in the categories above) is the leading methodology both in Australia and globally by investors to set targets and devise a net zero strategy.

Net zero initiatives

Investors are making their net zero targets public. Several leading investors have also joined investors’ net zero initiatives. This supports accountability and industry standardisation.

Carbon emissions measurement

Investors continue to increase the proportion of their portfolios subject to emissions measurement. More than half of all investors have measured emissions across their whole portfolio (after accounting for those not invested in particular asset classes), and nearly all investors have measured emissions across listed equities.

- A significant majority of investors are also measuring emissions across infrastructure, real estate and corporate fixed income.
- Emissions measurement lags across some asset classes, including sovereign bonds and private equity, owing to challenges in obtaining data and a lack of tools and standard methodologies.
- Asset owners generally do not formally require asset managers to report carbon emissions. However, there appears to be increased collaboration to ensure owners have the necessary data. Many mandates appear to have a generic reference to ESG management or reporting, which may be sufficient for some asset owners to capture climate reporting.

Climate metrics

Investors publicly disclose a range of climate-related metrics, with most disclosing Weighted Average Carbon Intensity (WACI) and absolute emissions.

Data aggregation

- **For emissions data**, investors use a mixture of in-house and outsourcing for data collection and aggregation, depending on the asset class.
- **For net zero alignment**, some investors conduct this assessment in-house using a range of indicators and sourced data points, while others use service provider data.

Scenario analysis

Fewer than half (43%) of investors are undertaking climate scenario analysis across their whole portfolios.

Physical risk and resilience

Physical risk assessment and investment lags well behind investor responses to climate mitigation. Twenty-two per cent of investors have assessed physical risk across their whole portfolio, but only 9% have implemented a response to increase resilience, for example, allocating capital to climate resilience solutions or requiring corporates to publish resilience strategies.

9 A climate solution is an investment in an economic activity, good or service that contributes substantially to emission reductions required by a 1.5°C pathway. A climate solution can be classified as a ‘low-carbon’ climate solution, ‘transitional’ climate solution or ‘enabling’ climate solution. For more information, see IIGCC, ‘Climate Investment Roadmap Report’, 2022.

10 See PAAO, ‘2022 Progress Report’, November 2022.

11 PAAO, ‘2022 Progress Report’, November 2022.

12 For guidance on setting portfolio coverage targets, see the [PAAO Net Zero Investment Framework](#) and [IIGCC Supplementary Target Setting Guidance](#).

13 PAAO, ‘2022 Progress Report’, November 2022.

Engagement strategy and targets

Most investors (68%) have adopted a formal engagement strategy and/or engagement targets. Investors are starting to communicate expectations for transitioning to the companies they invest in, including setting time-bound milestones.

- **Engagement threshold targets:** Investors are still in the early stage of setting whole-of-portfolio engagement threshold targets, but they report that a high proportion of their financed emissions are currently subject to climate engagement.
- **Collaborative engagements:** Almost three-quarters of investors (74%) are involved in collaborative climate engagement efforts in Australia, aiming to drive transformational change.
- **Engagement reporting:** Over half of the asset owners ask their external managers to report on their climate stewardship activities and outcomes, with the goal of helping owners' portfolios move towards net zero, optimise resource expenditure, and ensure consistency of goals.

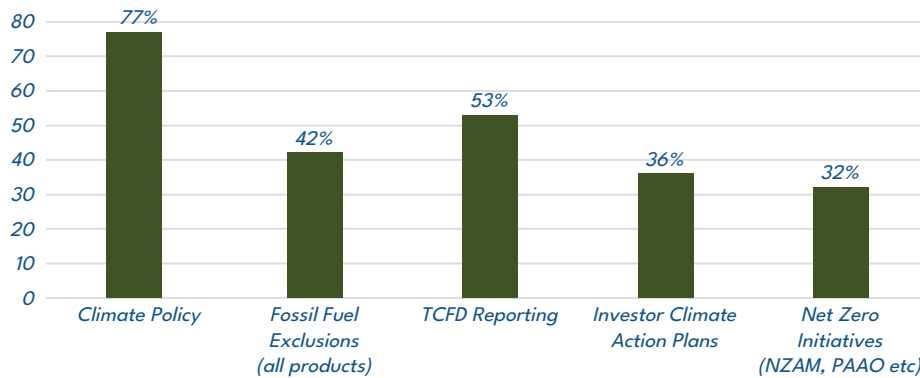
Climate solutions investments

Actual investments in climate solutions remain relatively low, despite growing incidence of target setting. A lack of appropriate investment opportunities, discussed in 'barriers to investment' below, may explain this. The report includes case studies of projects and investments in climate solutions.

- **Climate solutions in mandates:** Most mandates from asset owners do not require managers to invest in climate solutions. However, asset owners are beginning to ask managers to assess their exposure to climate solutions and to define methodologies.
- **Climate solutions across assets and regions:** A range of regions, including emerging markets, are considered attractive for climate solutions investment opportunities.

3.2 Climate Practices, Governance and Strategy

Investors' Implementation of Climate Practices



Climate policies

Most investors (77%) have a climate policy.

Fossil fuel exclusions

Fossil fuel exclusions are part of investment strategies, with 76% of investors having some form of climate-related exclusion in their portfolios. More than 40% of investors have exclusions across all products (with or without revenue thresholds), and 34% have exclusions only for sustainable investment products.

- **Exclusion types:** Of the climate exclusions applied, 88% exclude thermal coal, 47% exclude conventional oil and gas, and 35% exclude metallurgical (met) coal.

TCFD-aligned reporting

53% of investors now complete annual TCFD-aligned reporting, with 26% planning to over the next year.

- **Asset owner requirements:** Most managers responded that only a small portion of their asset owner clients require annual TCFD-aligned reporting.

Investor Climate Action Plans

Investors recognise the need to publish climate action plans, with 36% of investors already doing this and another 38% actively considering it. Plans have been published in various formats.

3.3 Barriers to Investment

Barriers to investment

The passage of Australian climate bills and other policy reforms in 2022 is starting to address policy uncertainty for investors in Australia (the key barrier highlighted in this survey in previous years).

However, climate policy uncertainty remains a barrier, along with a lack of appropriate investment opportunities. These barriers continue to pose challenges for investors to easily deploy capital in Australia. Addressing policy uncertainties will allow investors to deploy capital in Australia with greater certainty.

Climate governance

Governance on climate is progressing rapidly. Nearly half of all investor boards have formal oversight and accountability for net-zero commitments, with disclosure of this in annual reporting.

- **Executive remuneration:** 20% of investors have linked executive remuneration to delivering climate targets.

Carbon offsets for portfolio emissions

Investors generally do not use offsets against their portfolio emissions; instead, they are focusing on aligning assets themselves with net-zero pathways.

- **Offsets for operational emissions:** One-quarter of investors are carbon neutral at the organisational level, using offsets.

Just Transition

Over half of investors materially integrate just transition considerations into their portfolio management and investment strategies.

Biodiversity

Most investors have not yet conducted an assessment or integrated a response to biodiversity. Australian capital markets may therefore be under-pricing the implications of biodiversity loss nor adequately considering biodiversity in their investment processes.

Policy advocacy undertaken by investors

Investors are increasingly undertaking policy advocacy to drive the transition in Australia.

Investor priorities for the Australian Government

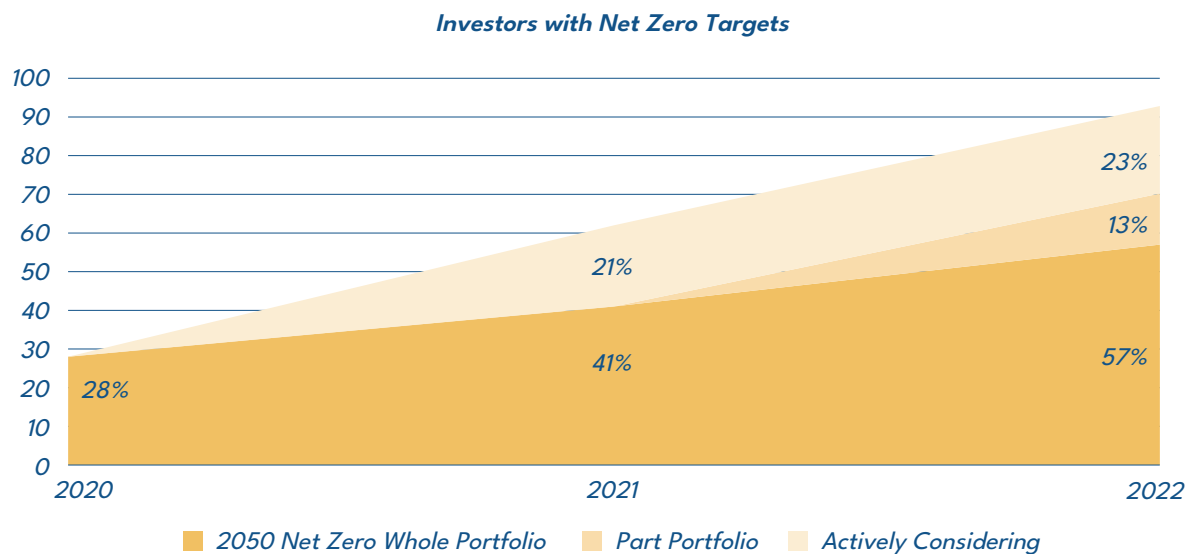
Investors flagged key priorities for the new Australian Government. These priorities are consistent with IGCC's 14 new policy priorities for the current parliament (refer to Theme 3).

4. Theme 1: Climate Targets, Metrics and Measurement

4.1 Net-zero Targets

Most investors (70%) in 2022 had set a 2050 net-zero emissions target over all (57%) or part (13%) of their portfolio, with asset owners leading the charge.

In 2021 41% of respondents had made portfolio-wide commitments to net zero by 2050, up from 28% in 2020.



Asset owners have led the charge, with 68% setting net-zero targets across their entire portfolio (up from 56% last year), compared to 46% of asset managers (approximately the same as that in the previous year).

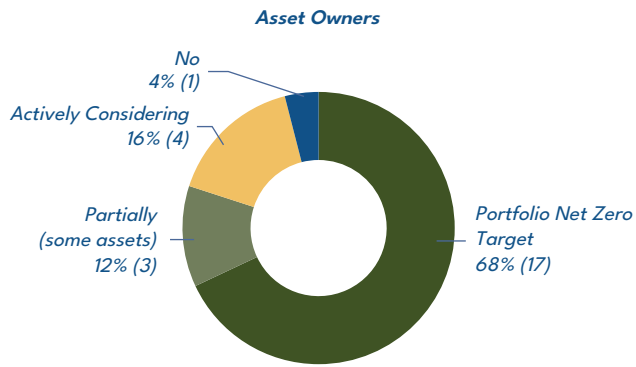
‘Whole of portfolio’ decarbonisation targets build accountability mechanisms for investors and other stakeholders to track the effectiveness of climate engagement and strategic asset allocation. Setting targets for whole portfolios may be easier than setting targets at the asset class level, providing multi-asset class investors greater flexibility on pathways to decarbonisation.

None-the-less, the results suggest that investors converted their appetite in 2021 to action in 2022, with more participants setting targets at the asset class level (see Chart 3).

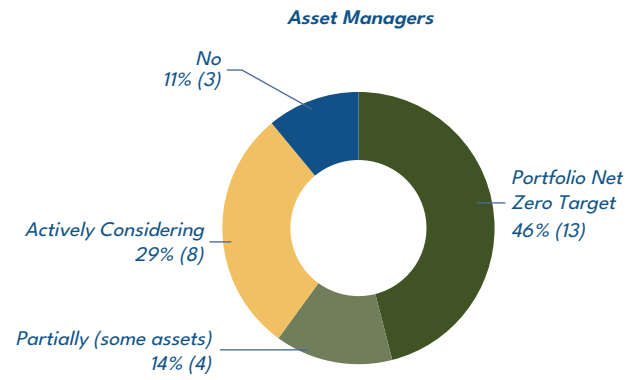
Setting a ‘whole of portfolio’ decarbonisation target alone could encourage investors to sell high-carbon assets rather than engage in driving real-world impact. For this reason, investors are also encouraged to set portfolio coverage targets (see Section 4.7, ‘Asset-level alignment and portfolio coverage targets’). This asset alignment approach focuses on getting companies onto a decarbonisation pathway to achieve real-world reductions. The Net Zero Investment Framework recommends that these two targets (and the others in information box 4) are set in conjunction.

Net Zero Targets by Type of Investor

Chart 1 (a&b): Investors with a public net-zero emissions target by 2050 or earlier



Have you set a public net zero emissions target by 2050 (or earlier)?



Have you set a public net zero emissions target by 2050 (or earlier)?

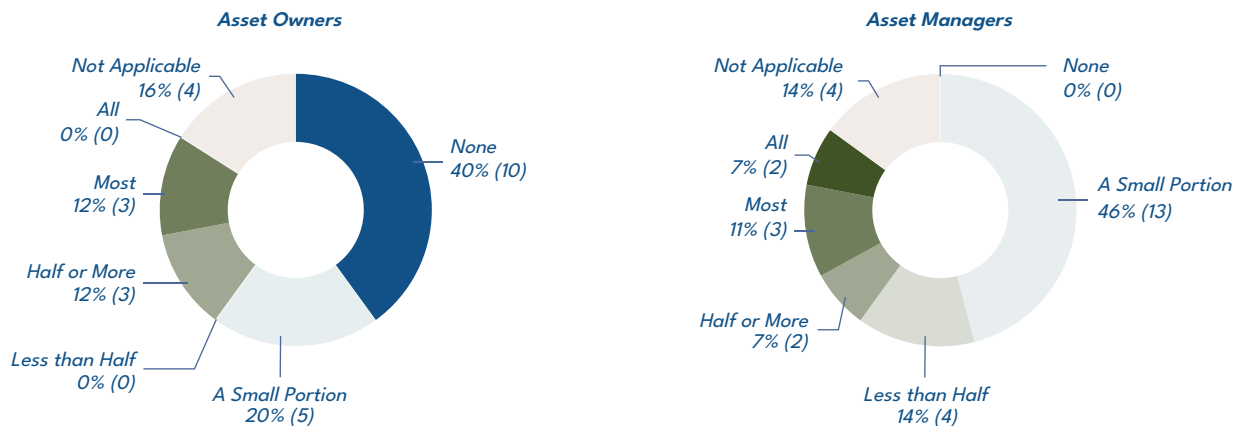
Mandates for Net Zero

Investment mandates set by asset owners rarely reflect an ambition for net-zero emissions.

Similar to 2020 and 2021, while asset owners' climate aspirations continue to grow, more work is needed to translate aspirations into action by aligning mandates with net zero commitments.

Both asset owners and managers report that requirements relating to net zero or decarbonisation are generally not included in Investment Management Agreements ('IMAs' or 'mandates').

Chart 2 (a&b): Requirements in mandates relating to net zero or decarbonisation



Asset owners were asked, 'What proportion of your investment mandates with external fund managers specify requirements relating to net zero or decarbonisation?'

Of the 25 asset owners who responded to the survey, 40% indicated that they did not yet specify requirements relating to decarbonisation in any mandates, and 20% noted that they included this in only a small portion of mandates.

Three asset owners indicated that they include climate in most mandates, whereas other asset owners noted that they focus on engaging with managers on their net-zero strategies and progress but do not specifically include it in mandates now, although they are considering doing so in the future.

Where asset owners have set net zero commitments, building structured alignment into mandates may help further operationalise net zero commitments and build protection against greenwashing risks.

One asset owner noted that they had added climate-related clauses in all investment mandates; while they do not specifically require net zero in IMAs, they do require managers to provide climate reporting, and they assess and rate external fund managers based on their integration of climate factors and require broad alignment with their net zero commitment goal. Another asset owner included requirements in mandates that managers be a certain percentage below benchmark WACI.

It was noted by an asset owner that *'this is a tricky question as many asset owners invest in pooled funds and it is hard to negotiate when only a stake in the fund'*.

Asset managers were asked, 'What proportion of clients have specified requirements relating to decarbonisation and net zero?'

Asset managers report that only a small portion of asset owner clients specify requirements relating to decarbonisation or net zero.

46% of asset managers indicated that only a small proportion of clients have specified requirements relating to decarbonisation and net zero. This may reflect that asset owners prefer informal methods of engagement with managers rather than incorporating net zero or decarbonisation references into mandates.

Asset managers' net zero targets lag that of asset owners, but it is recognised that asset managers act as fiduciaries in managing assets for their clients. Where asset owner clients elect not to formalise their net-zero emission investment targets in mandates, IGCC recommends they:

- work in partnership with asset owner clients on decarbonisation goals
- set an interim target for the proportion of assets to be managed in line with achieving net-zero emissions by 2050, which may exclude certain conflicting mandates of owners in the shorter term
- recognise that climate targets may not require purchase or divestment where opportunities exist for active climate-aligned stewardship.

Engagement Between Asset Owners and Managers

For asset owners, engagement with asset managers may be the most important industry engagement action they can take to deliver against their net-zero targets.

Asset owners are deploying asset manager surveys to understand how climate-related risks and opportunities are managed within each mandate or investment strategy.

Case Study 1 – HESTA’s Climate Analysis of Investment Managers



In 2020, HESTA became the first major Australian superannuation fund to make a commitment to reach net zero carbon emissions by 2050 across its portfolio. HESTA’s external investment managers have a key role in supporting implementation of HESTA’s climate targets.

In Financial Year 2021/2022, as part of regular performance monitoring of its external investment managers on responsible investment issues under their mandates, HESTA conducted a deep-dive into the outcomes achieved by the application of managers’ climate change policies and processes.

HESTA assessed investment manager responses against three pillars:

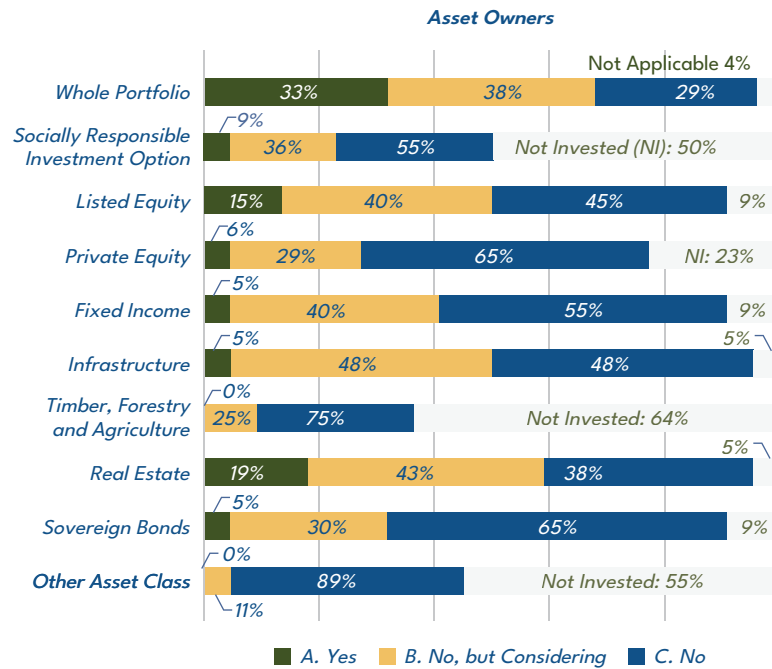
- **Risk Management** – How managers are underwriting climate risk
- **Opportunity** – How managers are investing in climate opportunities
- **Engagement** – How managers are engaging with material carbon emitters to reduce global emissions (as opposed to portfolio emissions)

Key findings from the engagement were that managers with a sustainability focus to their investment approach demonstrated better climate risk management techniques and that signatories to the Net Zero Asset Managers initiative demonstrated better engagement outcomes than other managers. HESTA used the results of the analysis to inform ongoing priorities for engagement with its external managers.

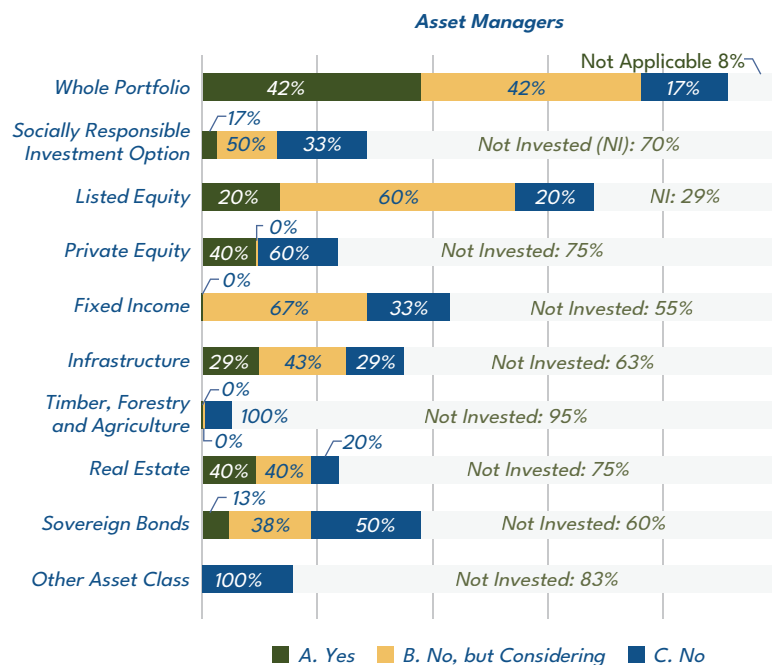
Interim Emissions Targets

Interim emission reduction targets are quickly catching up with longer term targets – 35% of investors have now set whole-of-portfolio interim targets.

Chart 3 (a & b): Investors with public interim targets (e.g., 2030 targets)¹⁴



Have you set a public interim target (e.g., 2030 or 2025) to reduce emissions? (Respondents asked to answer for each class and whole portfolio.)



Have you set a public interim target (e.g., 2030 or 2025) to reduce emissions? (Respondents asked to answer for each class and whole portfolio.)

Interim targets provide accountability in the short to medium term. Thirty-five per cent of all surveyed investors have now set whole-of-portfolio public interim targets, with 37% actively considering this. In line with requirements of the net-zero initiatives, several investors are setting interim targets for 2030 consistent with a fair share of the 50% global reduction in CO₂ (against a 2019 baseline) identified as a requirement in the IPCC special report on global warming of 1.5°C.¹⁵ Investors see interim net-zero commitments as a way to ensure that they manage climate-related risks in their investment strategies.

Some investors commented on the challenge of setting short-term emission reduction targets and the risks of not achieving these, including wanting to avoid any forced divestment or the need to purchase carbon offsets to achieve targets. They note that investors face different constraints depending on the geographical location of assets, national climate policies, evolving technologies, timeliness of data from third-party providers (meaning analysis can be backward-looking) and the inherent uncertainties in the transition to net zero. This may mean building appropriate assumptions and/or disclaimers into the target-setting process as appropriate. None the less, with physical impacts of climate change already being apparent, avoiding catastrophic long-term risk does require rapid progress on mitigation, with appropriate climate actions, structures, processes, and disclosures in place.

Interim targets across asset classes continue to gain traction, particularly in real estate and listed equities, presumably due to data availability and the element of prioritisation initially, as investors focus on the parts of their portfolio in which they have better access and more confidence in the data. Many investors are 'actively considering' targets across asset classes, but sovereign bonds, infrastructure and private equity are proving trickier as methodologies and datasets continue to develop.

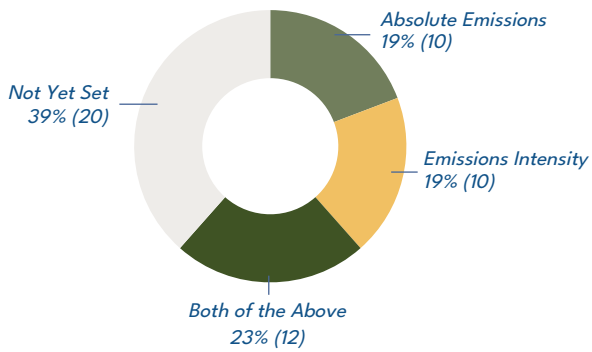
¹⁴ Percentages for A, B, & C baselined from all owners/managers invested in the asset class. "Not Invested" percentage baselined from all owners/managers in survey. For asset managers in particular, the "N/A or N/I" category may be high because many managers do not invest or manage money in that particular asset class.

¹⁵ Masson-Delmotte et al., IPCC, 2018: *Global Warming of 1.5°C*. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.

Communicating Targets

Investors are presenting interim targets in a range of formats, including absolute and relative.

Chart 4: How net-zero targets are presented



How are your targets presented?

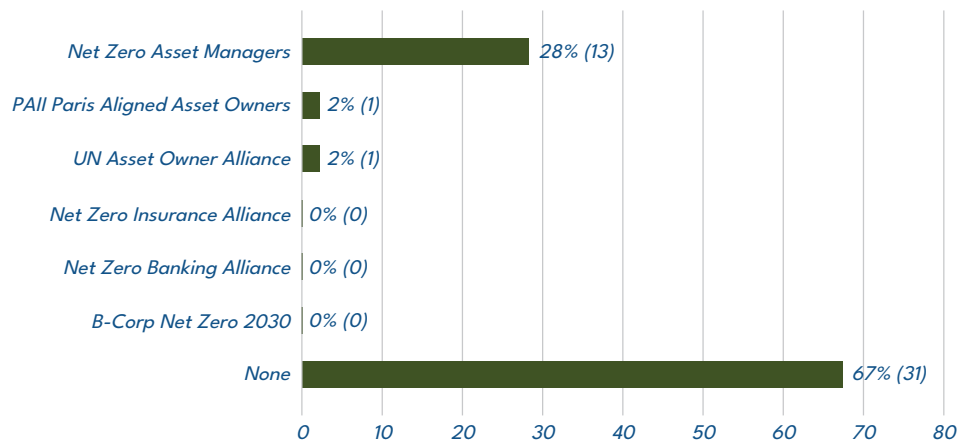
In addition to or in place of interim emission reduction targets, many investors are setting interim 'portfolio alignment' targets across asset classes based on forward-looking criteria for assets to be considered 'aligned' or 'aligning' to net zero in line with the PAII Net Zero Investment Framework. This is a useful way for investors to set short-term targets where they are struggling to set 2030 emission reduction targets. This is discussed further in Chart 12 ('Asset-level alignment and portfolio coverage targets').

An example from AXA Investment Manager on page 23 of the [May 2022 NZAM Target Progress Report](#) shows the combination of interim targets that investors are setting, based on different asset classes, datasets and methodologies.

4.2 Net-zero Initiatives

With many investors having announced their net zero targets, leading investors are bolstering their target accountability by joining investor net-zero initiatives. There has been consistent uptake of the Net Zero Asset Managers (NZAM) initiative within Australia, however asset owners have been slower to join global net-zero initiatives.

Chart 5: Investors part of net-zero initiatives



Asset owners can either join the Paris Aligned Asset Owner (PAAO) initiative (coordinated by AIGCC, Ceres, IGCC and IIGCC) or the UN Net Zero Asset Owner Alliance (UN AOA) (coordinated by PRI and UNEP FI). For more detailed information on the recommended target-setting methodologies of the initiatives, contact IGCC.

All are UN Race to Zero-accredited net zero investor initiatives (including Net Zero Asset Managers Initiative) and are under the broader finance sector alliance of Glasgow Financial Alliance for Net Zero (GFANZ). They share a common objective in relation to achieving net-zero global GHG emissions by 2050 or sooner, and

signatories of these initiatives will have to meet minimum criteria, including managing portfolios towards net-zero emissions and setting interim targets for 2030 or sooner. Each initiative has its own governance structure and approach to supporting signatories.

The net zero initiatives allow investors to accelerate the transition—through open disclosure; contributing to standardisation, transparency and enhanced credibility of targets; and working in conjunction with other investors to drive portfolio- and system-level change, including through bi-annual signatory meetings and local working groups.

Information Box 1

Net Zero Asset Managers (NZAM) Initiative



Since the launch of the initiative in December 2020, 292 signatories representing over US\$61 trillion in AUM have joined multiple waves of public announcements.

Signatories to NZAM must comply with a 10-point commitment.

All signatories, within one year of signing on, must publicly disclose:

- The initial percentage of their portfolio that will be managed in line with net zero
- Their ‘fair-share’ interim targets for AUM that will be managed in line with net zero and target date
- The methodology used in target setting
- Annual reporting, in line with TCFD recommendations, including information on climate action plans and progress towards targets.

See NZAM target disclosures online [here](#), and November 2022 press release accompanying targets [here](#).

Information Box 2

Paris Aligned Asset Owners (PAAO) Commitment



58 asset owners, with over \$3.3 trillion in assets, have committed to comply with the 10-point commitment:

- Contributing a fair share of emissions reductions to reach the global net-zero emissions goal by 2050 or sooner
- Setting targets to reduce GHG emissions consistent with a 50% fair share reduction by 2030

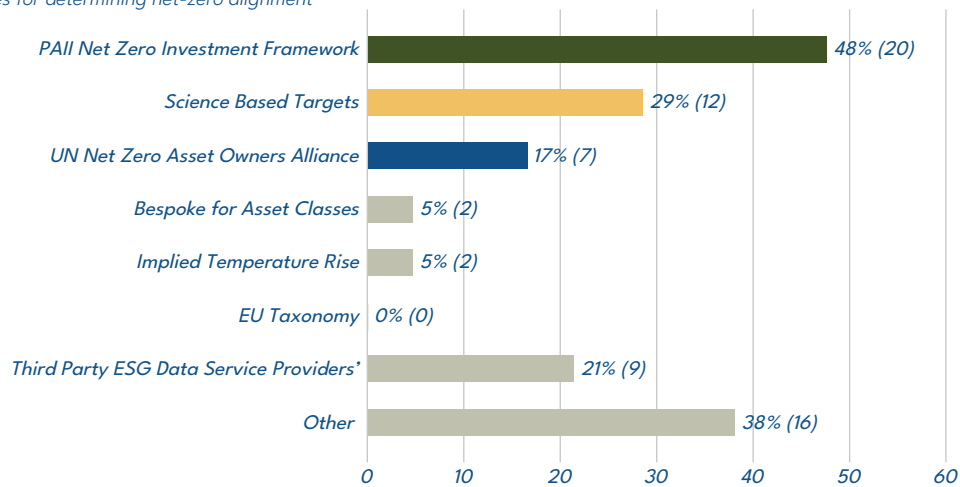
- Drawing on the Net Zero Investment Framework to set targets
- Publishing a climate action plan to deliver on targets.

See a link to the Paris Aligned Asset Owners ‘2022 Progress Report’ [here](#) and (November 2022) updated target disclosures [here](#).

4.3 Climate-aligned Methodologies

Investors continue to use specific methodologies to measure alignment to net zero at the asset level, with the Net Zero Investment Framework being the leading methodology.

Chart 6: Methodologies for determining net-zero alignment



There are a number of different methodologies for determining what constitutes net zero alignment. Please identify the methodology(ies) that most closely aligns with your approach.

Note: Investors could select one or more methodologies in answering this question on preferred methodology.

There are several different methodologies for determining what constitutes net-zero alignment. Investors use recognised climate-specific methodologies to make portfolio-wide net-zero commitments, shape strategies, implement transition plans and measure alignment at the asset level. These frameworks are important in helping investors with practical information to guide portfolios to net-zero emissions.

There continues to be a definite shift from using methodologies purely for integration and benchmarking towards frameworks that guide portfolio alignment. Asset-specific guidance continues to be used across specific asset classes (see information box 4 ‘asset-level alignment guidance’). Half of all investors are primarily using the PAI Net Zero Investment Framework because of the combination of targets required (see information box 4).¹⁶ Other investors use a combination of approaches, using information from service providers and other datasets to consider transition capacity, including CA100+ Benchmark Indicators, TPI and third-party provider metrics. Investors also use asset-specific tools (e.g., GRESB for real assets or Germanwatch CCPI for sovereign bonds) or create their own custom alignment tools (e.g., based on SBTi FI Sector Guidance or UN Target Setting Protocol for sectorial targets).

One asset manager provided additional insight into their answer:

‘Our approach includes a hierarchical data structure, using, in order of priority, data from: CA100+, TPI and then two third-party data providers. This data was used to score companies on the first six criteria within the PAI NZIF. These criteria scores were weighted based on our internal assessment of priority

and our confidence in the data behind each criteria. Each investment team’s portfolio was then analysed based on its overall proportion of companies in their portfolios aligned to net zero’.

Readers can see [here](#) in the PAAO Progress Report NN Groups data hierarchy for corporate alignment (page 13) and AP7s alignment methodology using publicly available data (page 35). In addition, see [here](#) a case study of how Willis Towers Watson adopted a Net Zero Investment Framework for their delegated portfolios.

What remains clear and consistent across our annual survey is the importance of using a credible methodology to define climate-aligned investments.

¹⁶ Most NZAM signatories are also using the PAI NZIF; see [here](#).

Information Box 3

The Four Climate Targets of Net Zero Investment



To set and disclose targets and objectives, investors can draw on the [Net Zero Investment Framework 1.0's](#) (NZIF's) four recommended targets.

NZIF was set up by IIGCC and its three global peer networks in Asia, North America and Europe to help a broad range of investors accelerate their progress towards net zero.

The combination of top-down portfolio-level and 'bottom-up' asset-level targets is the most effective means to drive real economy emissions reductions while enabling a practical and rigorous approach that provides accountability for action.

Portfolio-level Targets

1. **Portfolio reference target**—A <10-year CO₂e emissions reduction target
2. **Climate solutions target**—A <10-year goal for increasing allocation to climate solutions.

Asset-level Targets

1. **Portfolio coverage target**—A five-year portfolio coverage target for increasing the percentage of AUM in material sectors that are i) achieving net zero or meeting the criteria to be considered ii) 'aligned' to net zero, or iii) 'aligning' to net zero.
 - This target should increase towards 100% of assets being i) net zero or ii) aligned to net zero by 2040.
2. **Engagement threshold target**—An engagement threshold that ensures at least 70% of financed emissions in material sectors are either assessed as net zero, aligned with a net-zero pathway or the subject of direct or collective engagement and stewardship actions.

For further explanation of the four recommended target types, see the [IIGCC NZIF Supplementary Target Setting Guidance](#).

Information Box 4

Net Zero Investment Framework's Asset-level Guidance

The NZIF covers four asset classes:

- listed equity and corporate fixed income
- real estate
- sovereign bonds.

In 2022, consultations have led to the incorporation of the following asset classes into the NZIF:

- Infrastructure [<here>](#) (finalised)
- Derivatives and hedge funds [<here>](#) (under development)
- Private Equity for LPs and GPs [<here>](#) (under development)
- Sovereigns (ASCOR, Transition Pathway Initiative) (under development [here](#)).

These guidance tools aim to clarify, in each asset class:

- Scope of that asset class in scope for net-zero alignment
- Metrics and targets to measure alignment over time
- Implement actions to achieve alignment targets and decarbonisation of the real economy.

4.4 Carbon Footprint of Portfolios

Investors continue to increase the coverage of carbon measurement across portfolios. Forty-five per cent of investors have measured carbon across their whole portfolio, with a much higher proportion (nearly all investors) measuring carbon across listed equities, but emissions measurement across asset classes like sovereign bonds and private equity is lacking.

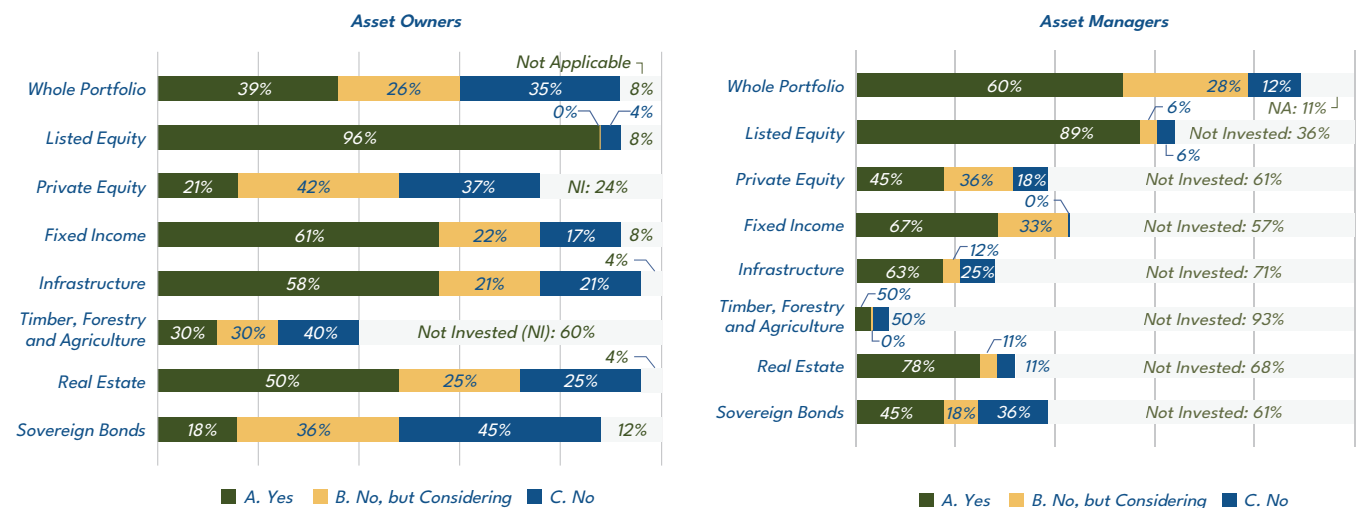
Carbon emission measurement continues to be an important area of focus and will continue as investors track portfolio alignment against their emission reduction targets. Investors continue to measure portfolio Scope 1 and 2 emissions and, to the extent possible, material portfolio Scope 3 emissions.

Despite remaining data gaps, investors are pushing forward with carbon measurement:

- 45% of investors report measuring carbon across their whole portfolio.

- Nearly all investors measure carbon across listed equities, an asset class with relatively more availability of information and some maturity of company disclosures and tools.
- A significant majority of investors (excluding those not invested in that asset class, marked 'N/A' or 'N/I' in chart 7) are also measuring carbon across infrastructure, real estate and corporate fixed income.
- A smaller number of investors are measuring carbon emissions in sovereign bonds and private equity, reflecting challenges in obtaining data, lack of tools, and standard methodologies.

Chart 7: Proportion of investors who have measured the carbon footprint of portfolios.



Have you measured the carbon footprint of your portfolio? (Select an option for each asset class.)

Have you measured the carbon footprint of your portfolio? (Select an option for each asset class.)

Percentages for A, B, & C baselined from all owners (left) or managers (right) invested in the asset class. "Not Invested" percentage baselined from all asset owners (left)/managers (right) in the survey.

One investor noted that they 'cross check the emissions data to sense check any issues and, should there be a significant disparity in the data, we will seek internal ESG expertise to resolve or explain the disparity'.

Scope 3 Emissions Measurement

In terms of Scope 3, many investors noted that they were measuring Scope 1 and 2 emissions only, with some planning to start to phase-in the measurement of Scope 3 emissions in line with schedules as denoted by the Partnership for Carbon Accounting Financials (PCAF), but note that data is often unavailable or they lack confidence in its accuracy. Some investors use data providers, such as S&P/Trucost, MSCI, Bloomberg, ISS, Sustainalytics, CDP and Pathzero. One investor noted that while they obtain Scope 3 data from a service provider, they have 'not felt comfortable proposing it as a standard metric or utilizing it in live portfolios, partly because of the low correlation in Scope 3 data across providers, in contrast to decidedly higher correlations between data for Scopes 1 and 2'. Investors can and should share feedback and suggestions with service providers to improve the breadth and depth of scalable climate datasets over

time. One investor commented that 'we included Scope 3 for all categories required by PCAF and also for some optional categories. We have measured the emissions of 93% of our debt & equity investments'. Another investor noted that they had 'sought actual data but are using some sector proxies and will update when actual data as available'.

One investor commented that the Sustainable Finance Disclosure Regulations (SFDR) has announced plans for Scope 3 reporting to be required from January 2023.

Case Study 2 – Opinion Article – Stewart Investors: Scope 3 Confusing Emissions Picture



Stewart Investors

Scope 3 emissions are hugely important, but the drive to include them as part of portfolio decarbonisation

potentially risks causing a ‘confused’ picture. Investors may need to look at the metric on a company-by-company basis, separately from other factors that impact a company’s net-zero profile, while also considering the sector within which they operate. ‘Dissecting’ the figures to understand how the location of emissions, upstream or downstream, may influence engagement with companies.

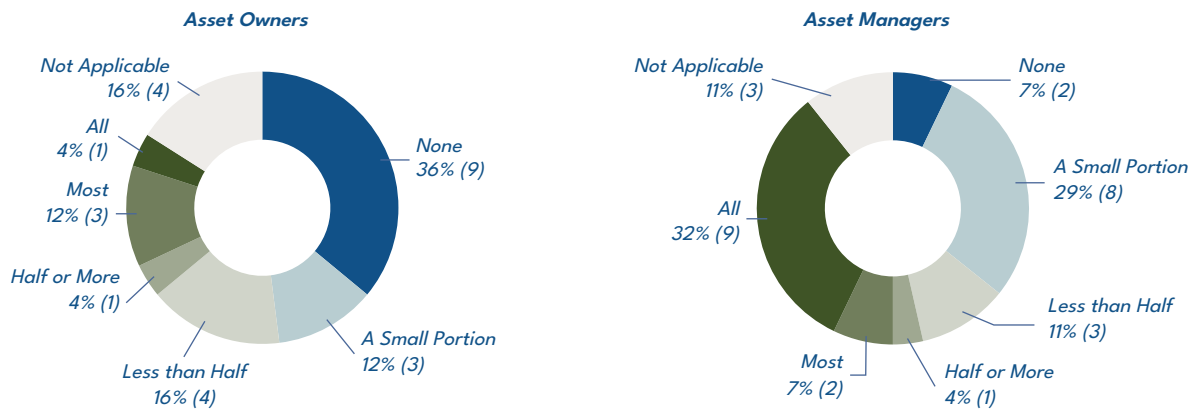
Arguably, it makes more sense for companies to disclose Scope 3, which covers all the remaining indirect emissions not covered by Scope 2, than for investors. We must focus on key sources and areas of potential influence to reduce emissions. Expanding the disclosure scope without corresponding action will not reduce emissions.

Stewart Investors’ published its first annual [Climate Change Report](#) earlier this year. You can read more about Stewart Investor’s approach in the opinion piece published in [ESG Clarity](#).

Mandates and Emissions Reporting

Asset owners are generally not mandating that managers report carbon emissions, though the survey found an increasing amount of less formal collaboration to provide owners with data they require.

Chart 8: Requiring carbon emissions reporting from managers



Asset owners were asked, 'What proportion of your investment mandates require carbon emissions reporting?'

16% of asset owners responded that they require carbon emissions data from most or all managers. A significant proportion of asset owners indicated that they either do not currently request this information or only request it from a small portion of managers. Some asset owners noted that they are considering adding a clause to new mandates for emission reporting.

Others stated that despite not having formal requirements on emissions reporting in mandates, there is a high degree of engagement and collaboration to improve the provision of emissions information and TCFD-aligned reporting and that they are integrating this into IMAs where possible or requesting managers to provide emission reporting each year outside of mandates. One asset owner commented that *'due to the transparency of portfolio holdings, they measure carbon emissions for 70% of portfolio holdings in-house, and therefore do not mandate managers to provide this'*.

Other owners subscribe to external carbon analytics services for underlying equity holdings to provide carbon emissions.

Asset owners commented that whether emission reporting is included in mandates depends on how prescriptive IMAs should be, and whether it is better to engage with asset managers on this outside of legal documents to obtain this information, given the speed at which climate reporting continues to evolve and the challenges data lag presents. Some asset owners noted that they are more interested in how managers incorporate emissions data into their decision-making, so they ask managers to report evidence of action rather than "black-and-white" emissions reporting.

Asset managers were asked, 'To what proportion of clients do you currently provide emissions reporting data?'

Responses varied: One-third of asset managers provided emissions data to all clients, while one-third reported providing emissions data to only a small portion of clients.

The reason for this variation could be that some managers simply report emissions data in product factsheets or report on data at the fund level in annual stewardship and sustainability reports rather than directly to asset owner clients. Managers are amenable to providing emissions data directly to clients based on ad hoc requests, including where not included in IMAs, according to qualitative responses in the survey data.

Case Study 3 – EG Managed Property Funds – Real Zero Carbon for Real Assets

Beyond Net Zero: EG's Delta Fund Targeting Real Zero Carbon for Real Assets

The logo for EG, consisting of the letters 'E' and 'G' in a bold, black, sans-serif font, positioned to the left of a vertical orange bar.

The way carbon is being measured in the built environment is archaic and no longer fit for purpose. New technology can enable the real estate industry to understand their assets' carbon consumption every 15 minutes, rather than using yearly carbon footprints dependent on the Government's annual NGA Factors.

This more granular, accurate approach to carbon accounting creates load shifting and demand management opportunities to drive down carbon. More often than not, buildings' operational hours coincide with periods when electricity has the lowest carbon intensity due to the abundance of solar in the grid. These periods are also when wholesale electricity is cheapest, further aligning outcomes for Owners and Managers.

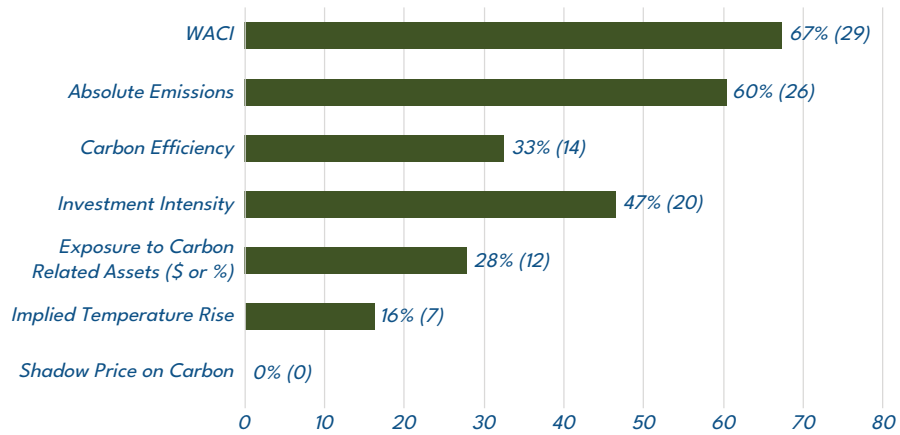
This demand management is just as crucial as changing supply for the energy grid to transition away from fossil fuels.

EG is leading the property sector's role in this transition, using active energy demand management to reduce building emissions to zero, rather than using offsets to net them off at zero. Real zero for real assets.

4.5 Climate-related Metrics

Investors continue to disclose a range of climate-related metrics publicly, with most disclosing WACI and absolute emissions.

Chart 9: Climate metrics investors disclose publicly



Which climate related metrics do you disclose publicly? (Please tick all those that apply.)

Investors primarily disclose the following:

- weighted average carbon intensity (WACI) (tons CO₂e/revenue) (67%)
- absolute emissions (tons CO₂e) (presumably based on the PCAF standard) (60%).

Some investors also disclose their investment intensity (tons CO₂e/invested) (47%) or carbon efficiency (tons CO₂e/revenue) (33%).

No investors disclose their shadow price on carbon (despite stating later in the survey that they use a shadow price on carbon internally to manage policy uncertainty), but some investors (28%) disclose their exposure to carbon-related assets (\$ or % of carbon-related assets in the portfolio).

Other investors only report these metrics to their board, stakeholders and clients rather than in public disclosures.

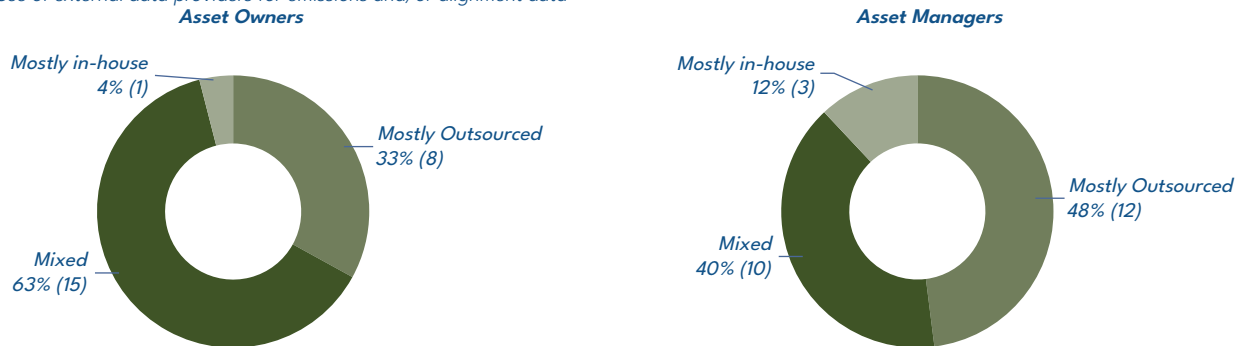
One investor noted that they use projected WACI:

‘Typically, WACI is backward looking, and because companies must report this data with a time lag, WACI does not reflect progress toward targets. To encourage target-setting, we use projected emissions data to connect companies’ decarbonization plans with anticipated changes in portfolio WACI. We project WACI in 2030 to demonstrate the amount of natural or bottom-up decarbonization we expect to occur as our portfolio companies execute against their stated targets. Projections are based on current emissions and reduction targets, if available’.

Assessing Emissions

Investors use a mixture of in-house and outsourcing to source emissions data, depending on the asset class. For net-zero alignment, some investors conduct this assessment in-house using a range of indicators and data points.

Chart 10: Use of external data providers for emissions and/or alignment data



To what extent are external providers used for sourcing and/or reporting of emissions data, or for assessing net zero alignment?

To what extent are external providers used for sourcing and/or reporting of emissions data, or for assessing net zero alignment?

A few investors gather climate data mostly in-house (only 8%), but a material proportion uses a mixture of in-house and outsourcing to obtain this data (51%).

To obtain emissions data, many investors outsource to service providers for some asset classes (e.g., listed market securities and corporate credit), but for other asset classes (for unlisted assets, like infrastructure and property), data is obtained from the investment managers responsible for managing these assets or from assets directly via annual, sustainability, GRESB, and/or CDP disclosures.

Investors made the following comments:

‘Scopes 1 and 2 emissions are based upon a combination of company-disclosed and estimated data to supplement data gaps, while Scope 3 emissions are based upon a fully estimated dataset’.

‘Our Fixed Income Team assessed the emissions profile of one of our Australian composite bond strategies compared to its benchmark. The team have developed their own methodology and have not relied solely on third-party assessments which have nominal coverage for fixed income securities. The assessment involved significant data scraping from issuers and from the Clean Energy Regulator via the National Greenhouse and Energy Reporting’.

‘We use carbon providers supplemented by own estimates for Green and sustainability bonds in certain contexts (as data providers) don’t provide carbon estimates for Scope 1-2-3 at bond level for use of proceeds bonds’.

Net-zero alignment is generally assessed using a range of indicators and data points. Many investors do this in-house using the Net Zero Investment Framework criteria and/or scraping data from CA100+, TPI, MSCI, SBTi, etc.¹⁷ Conducting this alignment assessment internally can assist investors in understanding the forward-looking alignment criteria on which companies should focus, thereby informing investors’ corporate engagements and prioritisations.

¹⁷ See, for example, NN Groups data hierarchy for corporate alignment (page 13) and AP7s alignment methodology using publicly available data (page 35) of PAAO, ‘2022 Progress Report’, November 2022.

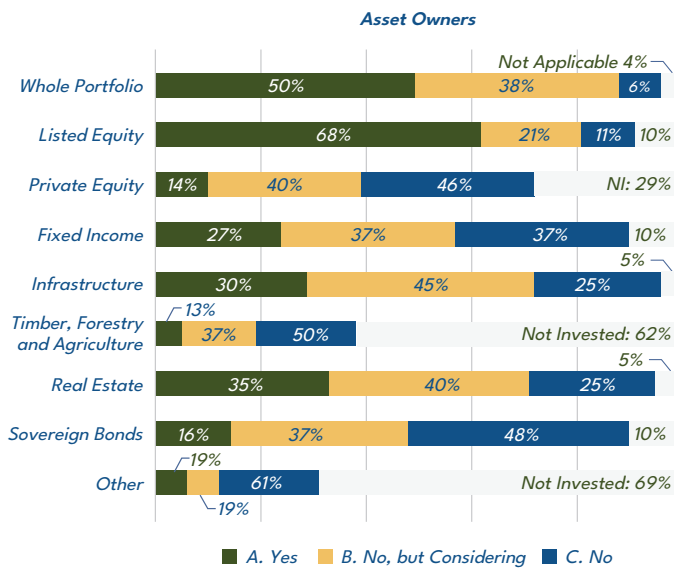
4.6 Scenario Analysis

Fewer than half (43%) of all investors are undertaking climate scenario analysis across their whole portfolio.

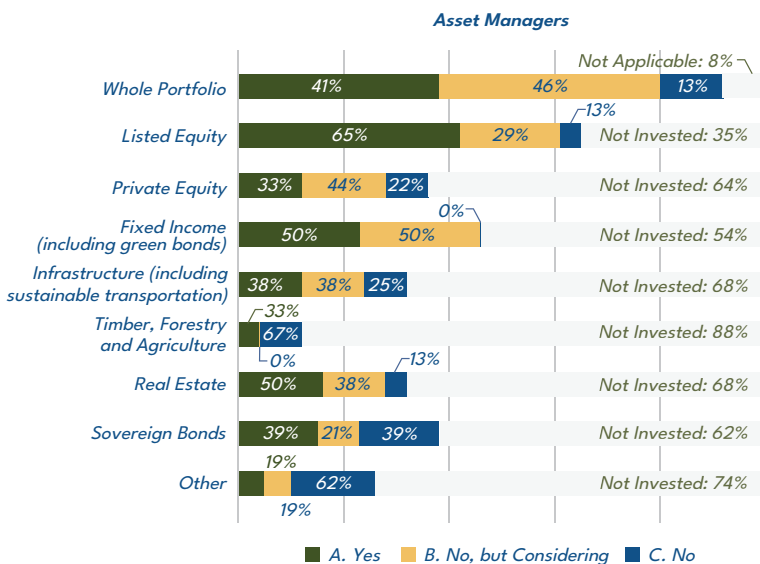
Investors recognise the importance of undertaking scenario analysis against 1.5°C, 2°C and 4°C scenarios and are testing portfolios against scenarios to understand vulnerability to transition risk and to obtain a probability-weighted portfolio return.

Some investors do this over short (2030) and longer (2050) timeframes.

Chart 11 (a & b): Proportion of investors who have undertaken scenario analysis*



Have you undertaken scenario analysis of your portfolio? (For example, against 1.5°C, 2°C or 4°C scenarios.) (Investors were asked to select for each asset class they invested in)



Have you undertaken scenario analysis of your portfolio? (For example, against 1.5°C, 2°C or 4°C scenarios.) (Investors were asked to select for each asset class they invested in.)

Fewer than half (43%) of all investors have conducted a scenario analysis across their whole portfolio. Listed equity coverage is more advanced, likely reflecting the number of existing tools in this asset class. Several participants are now undertaking scenario analysis across property and infrastructure, which is promising. Scenario analysis across sovereigns and obtaining information from underlying investments in private equity do not appear to be sufficiently evolved, as was the case in 2021.

Examples of scenarios used for the analysis:

- NGFS six scenarios (note that APRA specifically calls out the NGFS scenarios in [CPG 229](#),¹⁸ which explains why data providers and investors may be preferencing this)
- International Energy Agency (IEA) climate scenarios
- IPCC scenarios (e.g., IPCC SSP1-1.9 and IPCC SSP5-8.5; e.g., via Ortec Finance)
- Mercer climate scenarios
- Inevitable Policy Response scenario.

Some investors also questioned the usefulness of scenario analysis provided by external providers as a risk assessment tool. They suggest improvements are needed in quality, usability, and granularity. One investor commented:

‘third-party providers lack sufficient transparency in their models on both climate and cost impacts for us to fully assess their accuracy’.

IGCC has also noted the limitations of scenarios and the underlying data physical and transition risk available to the market, and expects to engage with government and regulators on this topic.

Broadly speaking, investors appear to find scenario analysis useful to gauge physical risk for real assets (see physical risk assessment in Chart 13) and to educate internally, but challenges remain in converting the results into action.

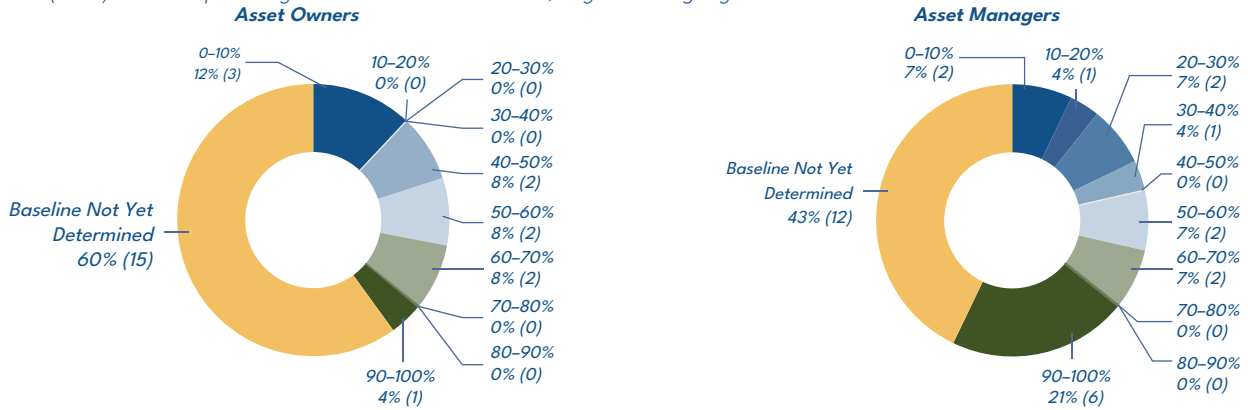
* Percentages for A, B, & C baselined from all investor types invested in the asset class. “Not Invested” percentage baselined from all owners/managers in survey.

18 CPG 229 Climate Change Financial Risks, ‘Prudential Practice Guide’, November 2021.

4.7 Asset-level Alignment and Portfolio Coverage Targets

Most investors have not yet assessed the percentage of their portfolios considered aligned to net zero by 2050.

Chart 12 (a & b): Investor's percentage of AUM considered 'net zero', 'aligned' or 'aligning'



What percentage (approx.) of your total AUM is currently considered net zero, aligned, or aligning with net zero by 2050?

What percentage (approx.) of your total AUM is currently considered net zero, aligned, or aligning with net zero by 2050?

Investors acknowledge the need to assess asset-level alignment based on forward-looking criteria and set corresponding targets (known as 'portfolio coverage targets'). The Net Zero Investment Framework (NZIF) recommends a five-year portfolio coverage target for increasing the percentage of assets in material sectors that are i) achieving net zero or meeting the criteria to be considered, ii) 'aligned' to net zero, or iii) 'aligning' to net zero.

Investors can start by conducting asset class alignment using the target-setting criteria set out in the NZIF (see information box 4), with many getting started first by assessing net-zero alignment of listed equities (see criteria in information box 5) before moving to other asset classes (see information box 1 'asset-level alignment guidance').¹⁹ Both asset owners and managers can use this common approach to facilitate communication between them and allow benchmarking against peers.

The portfolio coverage target is seen as the key driver for achieving net zero and securing emission reductions in the real economy. This is because it is designed to capture the extent to which assets are delivering against indicators that reflect both current and forward-looking alignment to net-zero pathways. Conducting this baseline assessment enables investors to understand what a portfolio company/assets need to do to achieve or align to a net zero by 2050 pathway.

Some investors have conducted this baseline assessment, with a range of responses, including some investors reporting 90% of total AUM currently considered net zero, aligned or aligning with net zero by 2050. However, we recognise differences in how investors classify 'aligned' and 'aligning', which is mostly related to methodologies, data points and indicators available (e.g., some investors base this on the percentage of companies with targets validated by SBTi).

The reason some investors claim such a high portion of the portfolio as aligning may also be that they constitute part of the portfolio is aligning where an external manager has committed to net zero by 2050, but this may ignore the bottom-up assessment of assets themselves, and so of itself does not indicate that the portfolio is being managed in line with net zero.

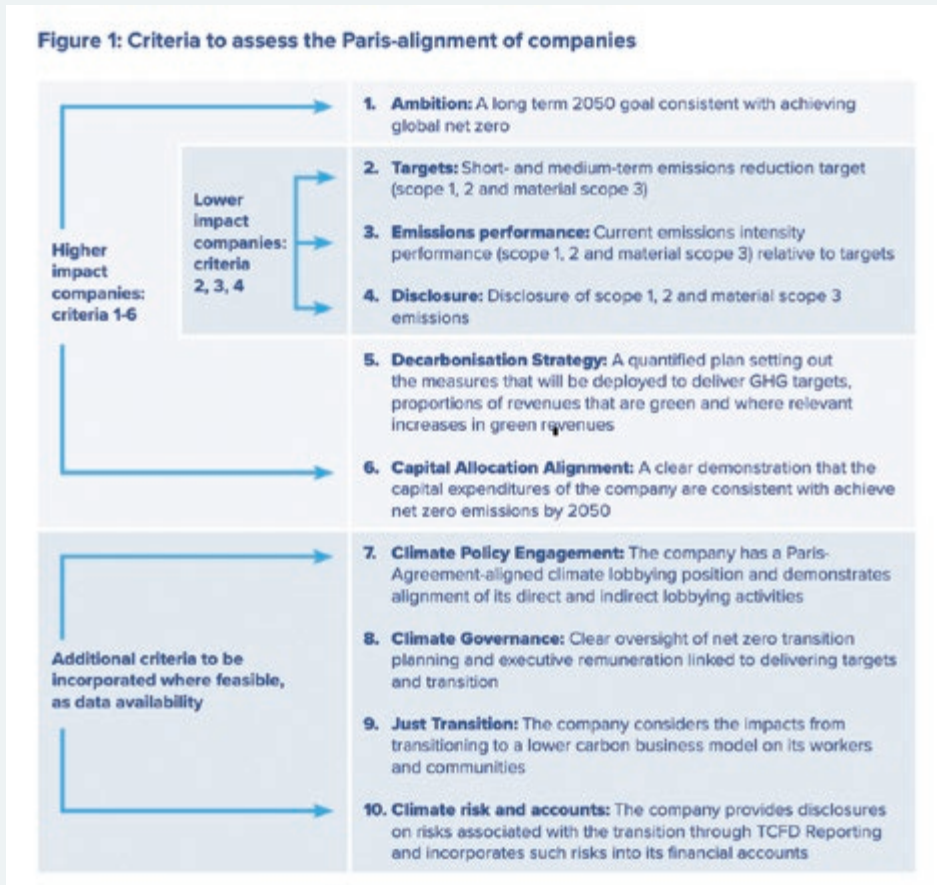
¹⁹ See the example from AP7 on alignment methodology using publicly available data (page 35) in PAAO, '2022 Progress Report', November 2022.

Information Box 5

Listed Equity/Corporate Fixed Income – NZIF Alignment Criteria



Six aspects of transition planning should be considered to assess alignment:



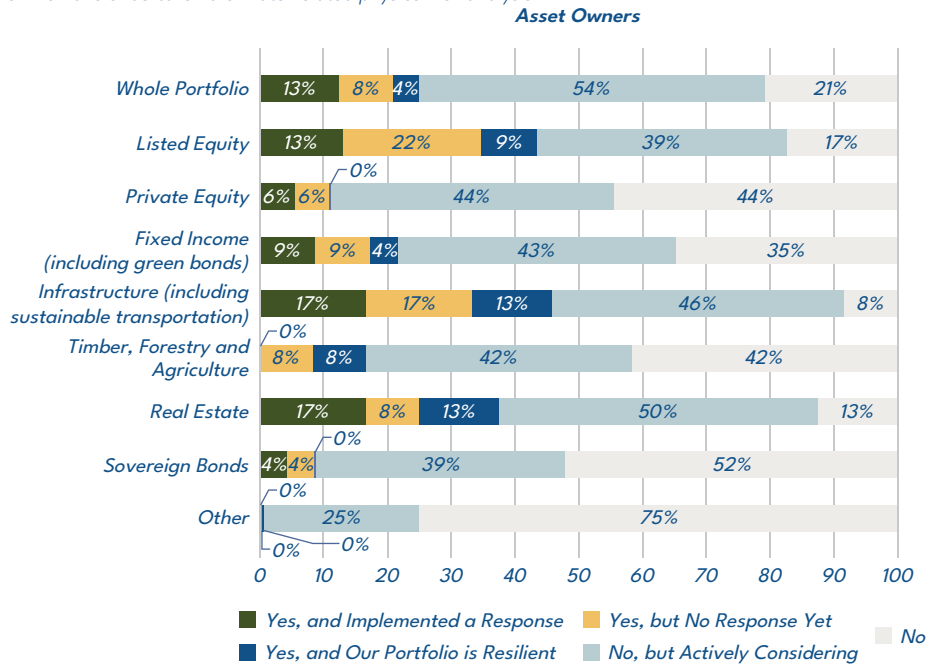
Guidance to assess alignment across other asset classes is included in information box 1 (Asset-level Alignment Guidance).

4.8 Physical Risk and Resilience

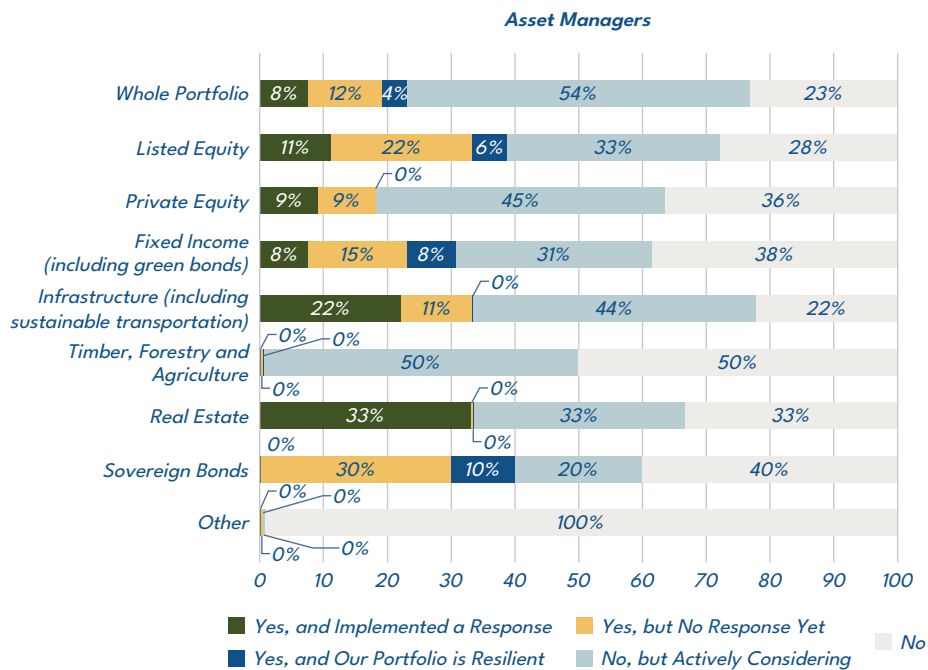
Physical risk assessment and investment lags well behind investors’ responses to climate mitigation goals.

Twenty-two per cent of investors have assessed physical risk across their whole portfolio, but only 9% have implemented a response to increase resilience. This is consistent with responses from the previous year’s survey.

Chart 13 (a & b): Investors who have undertaken a climate-related physical risk analysis



Have you undertaken a climate-related physical risk or resilience analysis of your portfolio? (e.g., scenario analysis that identifies key physical hazards that pose the greatest threats as well as what actions should be taken to mitigate the problems.)



Have you undertaken a climate-related physical risk or resilience analysis of your portfolio? (e.g., scenario analysis that identifies key physical hazards that pose the greatest threats as well as what actions should be taken to mitigate the problems.)

Australia is highly exposed to the physical risks of climate change. The IPCC has concluded that the scale and scope of compounding climate damage from around 2°C of global warming puts at 'high risk' the capacity of Australia's institutions, organisations and systems to address the socioeconomic damages of this level of climate change.²⁰ The physical impacts of climate change will cost the Australian economy hundreds of billions of dollars in the coming decades, primarily driven by the loss of life and physical damage from extreme weather events.²¹ Despite this, the survey results indicate that only a small portion of investors have conducted physical risk assessments across their portfolios. A limited number have implemented a response to increase resilience, for example, allocating capital to climate resilience solutions or requiring corporates to publish resilience strategies.

This area continues to be a challenge for investors, who have focused primarily on emissions mitigation and are slow to assess and invest in much-needed adaptation measures. According to the [Climate Policy Initiative \(CPI\)](#), total spending on climate finance during 2019–2020 reached US\$632 billion, with mitigation finance accounting for US\$571 billion compared to just US\$46 billion on adaptation and resilience, significantly less than what is required to meet the challenges posed by climate change.

As temperatures rise, there is clear evidence that climate hazards affect portfolios and the assets within them. Institutional investors are exposed to these impacts directly and indirectly.²² Managing the impact of physical climate risks is becoming an important part of investors' fiduciary duties to protect their clients' and beneficiaries' assets and the world in which they are valued. Despite investors recognising the importance of this work (with 51% actively considering conducting work in the shorter term), much work needs to be done.

Listed equity appears to be the most advanced asset class, with 32% of investors having already conducted a physical risk assessment. Of those, 6% believe this asset is already resilient, and 17% indicate they have not yet implemented a response to increase resilience. Some real estate investors are also making good progress.

One investor commented on the physical risk assessment it has undertaken:

'These assessments have identified those assets most at risk from physical risks. We are engaging with the assets identified as high risk to gain an understanding of how they are managing these risks. We also assess the plans and adaptation measures assets have in place to manage physical risks, as part of our due diligence process. Some major Australian unlisted assets have undertaken a climate change adaptability risk assessment. This helps us to understand the potential physical risk impact of climate change on these assets and to build strategies to manage physical impacts in long-term asset ownership plans.'

Another investor noted they have:

'assessed our fixed income portfolios exposure to different natural hazards in different geographical locations, which can affect the value of the portfolios and against appropriate benchmarks. The analysis evaluates the change in financial risk due to five of the costliest hazards under a 'most likely' scenario (RCP). Drought is the largest physical risk of the portfolios.'

Financing adaptation and other climate resilience is a necessity and an opportunity. Tools are being developed to support investors in assessing and investing in adaptation and resilience (see information boxes 6 and 7, on the next page).

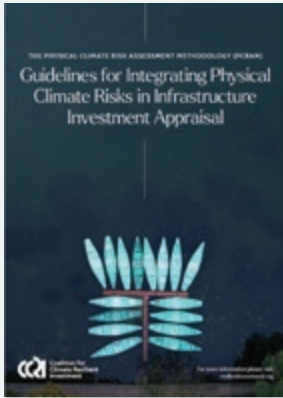
20 J. Lawrence et al., 'Chapter 11: Australasia', in IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability* (Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change), 2022.

21 IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability* (Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change), 2022; Deloitte Access Economics, 'Economic Reality Check: Adapting Australia for Climate-Resilient Growth', January 2022.

22 Direct impacts may include damage caused by more intense and more frequent extreme weather events or reduced productivity due to altered climate conditions. Indirect impacts may include disruptions to supply chains that interrupt business, more expensive or unavailable insurance and worse overall economic conditions.

Information Box 6

Physical Climate Risk Assessment Methodology



Supported by IGCC, the Coalition for Climate Resilient Investment (CCRI) launched the Physical Climate Risk Assessment Methodology (PCRAM) tool in September 2022.

PCRAM provides asset owners and investors with a methodology for quantifying the likely impact of physical climate risks on real assets and the benefits of incremental resilient investments.

It demonstrates the value created by investing in resilience and should provide the incentives needed to unlock the significant appetite for private investment in the sector.

PCRAM uses a new methodology that provides infrastructure owners and operators with the means to evaluate physical climate risks to infrastructure and analyse their long-term impact on asset performance. This capability ensures that climate risk assessment is integral to adapting infrastructure assets—from asset design on day one and through the entire life cycle of the project—leading to significant reductions in the cost of future climate adaptation measures and improvement in the quality of revenue streams.

CCRI analytics offer the potential to drive a more efficient allocation of capital towards climate-resilient investments, without which we are unlikely to future-proof our communities for the decades ahead.

Information Box 7

Working Towards a Climate Resilience Investment Framework



This discussion paper (September 2022) provides early insights into the first steps towards creating a Climate Resilience Investment Framework. It does this by:

- Looking at the relationship between physical climate risks, investment portfolios, underlying assets, as well as the markets and systems in which they operate (section 4)
- Setting out key levers by which investors must address asset risks, portfolio risks and systemic risks (section 5).
- Proposing elements of an overall framework, commitment text, and foundations of target setting (sections 6, 7 and 8)
- Suggesting a phased approach for investors to integrate and adopt the framework (section 9)

4.9 Investor Engagement and Stewardship

To achieve 2030 emissions targets in investor portfolios across the globe, investors need to drive rapid changes in the real economy.

They have the opportunity to encourage the companies they own take the necessary action; produce credible net-zero transition plans; and deliver 1.5°C-aligned short-, medium- and long-term emission reduction targets.

Investors increasingly recognise their exposure to climate risks and their fiduciary duty to respond. While investors can redirect their investment decisions to favour companies and projects that will accelerate the necessary clean technology transition, they also have a powerful opportunity to affect behavioural change and transformation among the most carbon-intensive companies through their portfolio holdings. Investment stewardship, including direct and collaborative engagement with companies, can support corporate action on climate consistent with long-term value protection and creation.

Investors are already active in this regard. Investors engage with high-emitting companies individually and through collaborative engagements and exercise voting rights to influence company climate action through ‘Say on Climate’ advisory votes and other

climate-related shareholder resolutions. Active ownership is the primary tool for influencing company climate action. However, investors recognise that engagement must focus on specific and time-bound company expectations and be paired with effective escalation strategies, such as voting against company director re-elections or divesting stock. If executed this way, stewardship can be a critical part of achieving the real economy-wide emission reductions needed to manage systemic climate risk. Without robust corporate engagement practices to encourage companies’ alignment with net-zero pathways, investor net-zero claims could amount to greenwashing.

Most investors have adopted a formal engagement strategy and/or engagement targets.

Chart 14: Investors with a climate engagement/stewardship strategy or engagement threshold target



Have you developed a comprehensive climate engagement/stewardship strategy or targets (i.e., a strategy to guide your prioritisation and engagements with portfolio companies/assets re the transition to net zero)?

Have you developed a comprehensive climate engagement/stewardship strategy or targets (i.e., a strategy to guide your prioritisation and engagements with portfolio companies/assets re the transition to net zero)?

Nearly 40% of investors have a formal engagement strategy and targets, while another 26% have a formal strategy but no engagement target. Investors can adopt the Stewardship Toolkit (see information box 8), which provides investors with a foundational process to enhance their stewardship practices.

Investors with limited resources may focus their engagement on top contributors to carbon footprints, particularly where those companies have not demonstrated a credible decarbonisation strategy. The [CA100+ Net Zero Company Benchmark](#) provides a useful standard and set of options for engagement tasks.

Case Study 4 – HESTA – Escalation



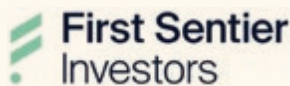
H.E.S.T. Australia Ltd. (ACN 006 818 695), as trustee for HESTA (previously the Health Employees Superannuation Trust Australia) (**HESTA**), has been engaging with emissions-intensive companies through both direct and collaborative programs for many years. In 2021, HESTA introduced an engagement-escalation framework (the **Framework**).

In July 2022, as part of implementing the Framework, HESTA conducted an annual assessment of the climate change transition progress of companies that are key contributors to portfolio emissions. The assessment identified that AGL, Origin, Santos and Woodside faced significant decarbonisation challenges, requiring a major shift in their strategies to offer low-carbon energy products. These companies have now moved to a watchlist position according to the fund’s engagement escalation framework.

HESTA informed AGL, Origin, Santos and Woodside that they were placed on a watchlist under the Framework and sought a response from the companies on how their climate strategies align with a 1.5°C pathway. Origin, Santos and Woodside were also asked to outline how they will demonstrate that Final Investment Decision (FID) on major projects is consistent with a carbon budget aligned with a 1.5°C pathway. Watchlist companies are subject to closer engagement and monitoring. The Framework also considers the use of votes against ‘Say on Climate’ resolutions, Directors’ elections, support or filing of shareholder resolutions and/or consideration of divestment, where HESTA considers there is inadequate evidence of progress to address risks and it is in members’ best financial interests.

Case Study 5 – Igneo Infrastructure Partners Direct Infrastructure – Climate Action 1, 2, 3! Engagement Program

Accountability. Practicality. Simplicity.



Infrastructure businesses are at the epicentre of climate change impacts. We see this in the carbon-exposed sectors in which we operate, particularly energy and transport, and the very long investment horizons these assets occupy.

In 2021, we published our target for Net Zero greenhouse gas emissions in our funds by 2050 or sooner. Supporting this, we developed our transformative **Climate Action 1, 2, 3!** program. This is a pragmatic and practical approach for each business in the great diversity of infrastructure sectors within the asset class.



CA123! is simple in its messaging, practical in its application, and big on impact.

- Action #1 is to develop a NZ2050 roadmap. Importantly, this should include short- and medium-term emission reductions targets, and a plan for achievement.
- Action #2 is detailed climate change impact assessments, where physical and transition impacts are assessed in detail, and responses are integrated into business plans.
- Action #3 is strengthening governance. With guidance from the TCFD, this will include governance features, such as defined responsibilities, risk management, monitoring climate data and aligning incentives.

CA123! focuses on improvements, not exclusions, recognising the limitations of avoiding or divesting. Supplementary aspects include our aim to increase investments in climate solutions, and not count ‘avoided emissions’ to offset emissions in the portfolio.

CA123! covers the full breadth of climate impacts—emissions reduction, climate change impact assessments and corresponding response measures, all wrapped in improving governance – and it delivers this with a clear, simple and, easy-to-follow message.

Case Study 6 – Regnan’s Approach to Measuring the Effectiveness of Engagement



Engagement is a key plank in investor net-zero responses. It is one of the primary vehicles through which investors can seek:

- that investee companies transition in an orderly manner; and,
- that this occurs in a way that reduces emissions within the real economy.

Understanding the effectiveness of engagement in achieving these objectives is an important input to ensuring that these efforts are meaningful. Regnan uses a structured process to identify engagement targets, undertake constructive engagement and track progress to ensure its efforts remain consequential.

In assessing the effectiveness of its engagements, Regnan applies four considerations:

1. The robustness of the claim made by the company engaged, including the forum in which its response is disclosed.
2. The substantiveness of Regnan’s own conversations with the company.
3. The evidence of influence, including in either changing behaviour or encouraging the disclosure of work already underway.
4. The degree to which the company’s response aligns with the concerns raised in engagement.

These tests enable a robust measurement of progress which is communicated publicly each year in Regnan’s Annual Engagement Report. The report includes both statistical data on progress shown across its program, together with more detailed examples of the type and examples of progress achieved. Regan’s report for 2022 is available on The Pandal Group website [here](#).

Case Study 7 – PIMCO – Bond Engagement *For illustrative purposes only.*



Influence change is one of the four pillars of PIMCO’s Net Zero Framework ([link](#)). PIMCO believes that the bond market plays an important role in supporting the global transition to a net-zero carbon economy owing to the diversity of issuers, the repetitive nature of bond issuance, and the presence of a large and growing market of bonds financing the pathway to a low-carbon world. PIMCO’s engagement focuses on bolstering issuers’ alignment with Paris Agreement targets, supporting companies to improve their management of the underlying credit risks as they move beyond awareness towards readiness, and ultimately a commitment to be consistent with global climate goals (e.g., setting science-based GHG emission reduction targets, with a focus on the most ambitious pathway). The evidence of issuer’s best effort and performance in relation to these points informs PIMCO’s proprietary environmental assessment and scores, which are integrated into PIMCO’s credit research notes.

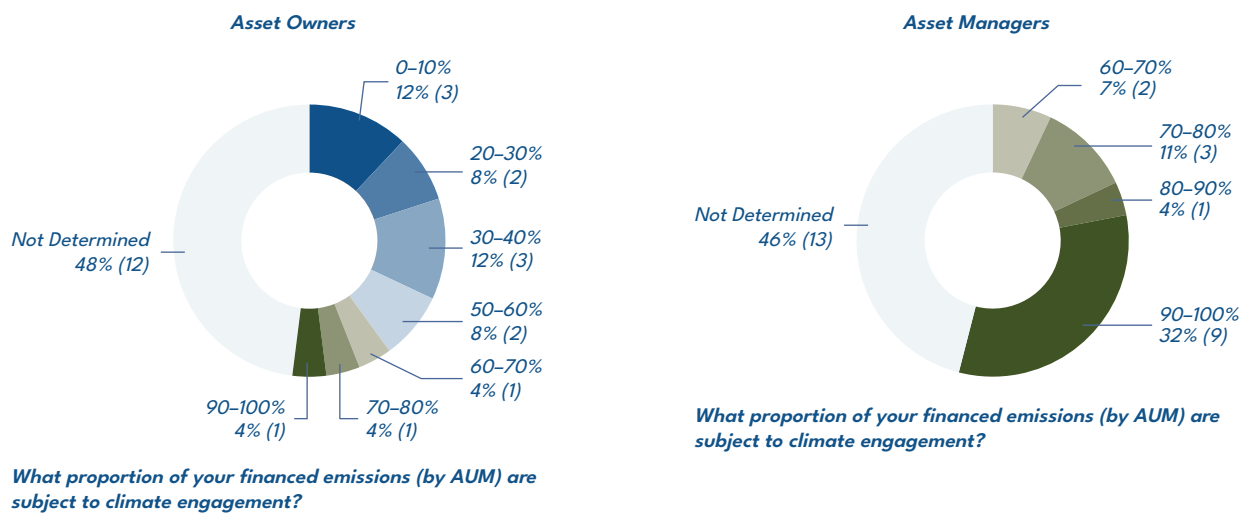
Climate Awareness	Recognition	Does the issuer recognise climate change as a significant issue and has it developed a policy?
	Reporting	Does the issuer report both its absolute and relative greenhouse gas (GHG) emissions across the entire value chain (including Scope 3), including carbon intensity based on relevant production metrics if appropriate (e.g., MWh for Utilities, km for Auto) and both current and historical performance?
Climate Alignment	Scenarios	Does the issuer carry out and disclose a comprehensive and quantitative scenario analysis, including conclusions regarding the financial impact and with reference to transition risk (e.g., policy shift towards 1.5–2°C temperature rise scenario) and physical risks (e.g., rise in frequency of extreme weather events)?
	Strategy	Has the issuer set a net-zero commitment and Paris Agreement-aligned (1.5°C science-based) GHG emissions reductions targets (including interim targets across all relevant scopes) and had it verified by the Science Based Targets initiative (SBTi)?
		Does the issuer report a detailed transition plan including the respective contribution of all the levers to the total GHG emissions reductions and the investments associated with those (quantified plan setting out the measures and business implications, e.g., for capex and revenues)?
		If the company has set a net-zero target, 1) which share of lifecycle emissions does it cover; 2) does it plan to absorb and offset emissions in line with the mitigation hierarchy (reducing emissions as a first order priority); and 3) does the company disclose the absorption and offset mechanism details (including alignment with science and certified methods of GHG removal and offsetting)?

PIMCO recently expanded its bilateral and collaborative engagement to several new themes and initiatives in support of reduced emissions in the real economy across sectors especially relevant to fixed income portfolios, such as better methane measurement management for energy companies, enhanced climate disclosure and strategy for National Oil Companies, traceability on forest risks, or portfolio alignment with the Paris Agreement for Banks ([link to PIMCO ESG Investing Report](#)).

Portfolio Coverage and Engagement

Investors are still in the early stage of setting engagement threshold targets across whole portfolios, but the current coverage of financed emissions subject to climate engagement is high.

Chart 15: Investors' proportion of financed emissions subject to climate engagement



The Net Zero Investment Framework recommends that investors implement an engagement goal to ensure that at least 70% of financed emissions in material sectors are either net zero, aligned to a net-zero pathway, or subject to direct or collective engagement and stewardship actions. The threshold should increase to at least 90% by 2030 at the latest.

By conducting this baseline assessment and setting a target, investors can improve their accountability to deliver on ongoing engagement and stewardship actions. These steps also help target engagement with the most emission-intensive investments in a portfolio while focusing engagement efforts on assets not aligned to a net-zero pathway.

The proportion of financed emissions subject to climate engagement varies greatly; 47% of investors have not yet determined this. Nineteen per cent of investors report 90–100% of their financed emissions are subject to climate engagement.

Some investors noted that while they have not undertaken this assessment, they have identified the largest contributors to their portfolio emissions and developed targeted and comprehensive direct engagement plans. Other investors noted that managers do this on their behalf, with a focus on report-back of engagement quality and outcomes.

Regarding engagements across other asset classes, in IGCC working groups during the year fixed income managers indicated that they are engaging with corporates on current and future issuance, especially relating to green or climate-related use of proceed bonds. Eligibility criteria are rising for green, social and sustainability bonds, and companies must be credibly transitioning in line with net zero by 2050 ambitions to gain access to these forms of debt.²³

Bond investors wield important stewardship tools to support company dialogues. Bonds need to be refinanced, and refinancing can be withheld. Refusal to participate in refinancing the rollover of company bonds and issuer-specific divestment are potentially effective escalation tools to encourage companies to be responsive to investor expectations regarding robust climate transition plans. Bond investors can consider engagement during investor roadshows at the time of debt reissuance and in collaboration with other bond investors.²⁴ While most investors' green bond exposure remains very low, this begs the question of what investors can be doing to engage on climate grounds with sovereign bond issuers.²⁵

Other asset classes, particularly real estate, appear to be subject to significant climate engagement. For private equity general partners and limited partners, several engagement and implementation actions exist to achieve net-zero alignment and decarbonisation across the real economy.²⁶

23 See Climate Bonds Initiatives, 'Transition Finance for Transforming Companies' (Discussion Paper), September 2021.

24 The Investor Agenda, 'Investor Climate Action Plans (ICAPs) Expectation Ladder', May 2021.

25 Climate risks to sovereign debt span physical risks, including the fiscal costs of climate-related disasters, and transition risks, including reduced revenues from fossil fuel royalties (information box 6).

Climate change is currently a significantly under-priced risk in sovereign debt markets. As a result, a rapidly growing area of investor stewardship and practice is understanding the implications of climate risks and opportunities for sovereign debt.

Climate risks to sovereign debt also exemplify how climate risk and opportunities can be transmitted through the economy. See A. Dibley and Z. Whitton, *Beyond Disclosure: Managing Sovereign Climate Risks*, 2021, in preparation. See also the *ASCOR project*, which is developing a methodology and investor tool that can assess the risks and opportunities in sovereign bonds.

26 PAII, *Net Zero Investment Framework. Consultation on Proposed Components for Private Equity*, 2021.

Information Box 8

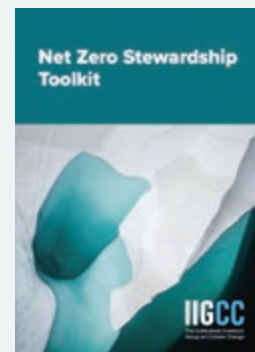
Engagement Targets and Strategies

In 2022, the IIGCC launched the [Net Zero Stewardship Toolkit](#), providing a systematic framework for global investors to help prioritise high-impact corporate engagement and hold companies to account.

The toolkit, co-authored with Railpen, outlines six key steps for net-zero stewardship.

Box 2: Net Zero Stewardship key steps

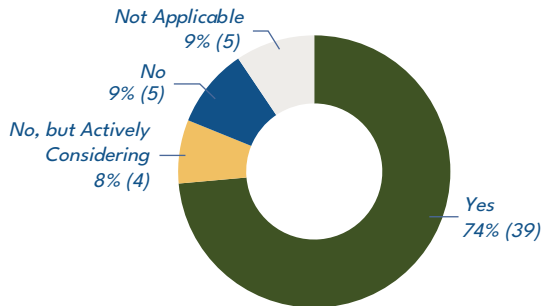
- 1. Undertake portfolio analysis and use the stewardship framework for prioritisation of key engagements:** A process to identify companies in scope for engagement, to prioritise these engagements and allocate resource based on the importance of key companies to achieving portfolio goals and real-world emissions reduction.
- 2. Set net zero alignment criteria, time bound company level objectives and portfolio goals:** Development of a framework of company net zero alignment criteria to be used to determine if companies can be classified as aligned and to set company level time bound objectives and milestones that drive stewardship priorities and enable measurement of portfolio alignment goals (Box 1).
- 3. Develop an engagement strategy for priority companies:** The establishment and implementation of strategies to increase alignment of priority companies, with clear escalation actions to be used where time bound objectives are not met. This step addresses the core portfolio alignment objectives under the various alignment frameworks (Box 1).
- 4. Develop a baseline engagement (minimum level) and voting policy approach for all companies:** The establishment and implementation of baseline engagement and voting approach, to be undertaken as a minimum for the maximum number of companies in material sectors within the boundaries of relevant portfolios and clear escalation actions to be used where time bound objectives are not met. This step addresses the requirement under NZAM and PAAO to implement a stewardship strategy across all AUM.
- 5. Asset owner and manager alignment and engagement:** Guidance to ensure alignment of engagement priorities and objectives to reduce duplication and enhance impact by collaborating where valuable.
- 6. Transparency:** A framework to inform disclosures on the net zero stewardship strategy.



Collaborative Engagement

Most investors surveyed (74%) are involved in collaborative engagement efforts on climate change in Australia to drive transformational change. A further 9% are actively considering involvement.

Chart 16: Investor involvement in collective engagement efforts on climate change within Australia



Are you involved in collective engagement efforts on climate change with investee companies in Australia?

Australia’s economy is the most emissions intensive in the OECD.²⁷ Stewardship is essential for preserving and enhancing asset value. Due to the systemic nature of climate change, collective engagement brings diverse stakeholders together to unite around the common goals of addressing climate change and has great potential to drive transformational action. By coordinating company engagement under a broad common agenda, such as the CA100+ Net Zero Company Benchmark, investors can significantly accelerate the business transition to net-zero emissions. Many IGCC members are already involved in the Climate Action 100+ initiative (see information box 9).²⁸ Other investors collectively engage on climate change via ACSI, Australian Industry Energy Transitions Initiative, CDP Non-Disclosure Campaigns, Federated Hermes EOS (international) and through asset managers. One investor also noted that it is ‘often helpful for companies to be hearing similar messages from multiple investor voices, not necessarily all voices being combined into one’.

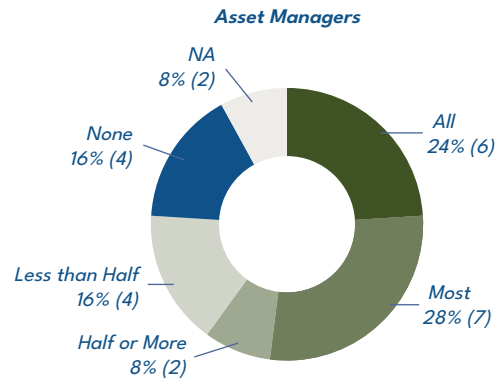
Over half of asset owners are asking their external managers to report on their climate stewardship activities and outcomes.

Over half of asset owners ask most or all of their external managers to report on their climate engagements and outcomes. Structured alignment between asset owners and managers in the stewardship process is crucial for the successful implementation and achievement of climate targets and, thus, real-world emissions reductions. Asset owners are starting to establish specific stewardship expectations of managers who engage with companies on their behalf, including utilising the IIGCC Net Zero Stewardship Toolkit.

For asset owners, it is important that methodologies for corporate alignment assessments and milestones, as well as voting and escalation actions, are refined and synced with those of any external managers. Asset owners indicated that in 2023 they will continue to

ensure that engagement activity from external managers delivers what the asset owner requires to align their portfolio with net zero, optimise the use of resources, and ensure consistency of goals and approaches.

Chart 17: Requirements on asset managers for reporting on climate engagement activities and outcomes?



What proportion of asset owner clients require reporting on climate engagement activities and outcomes?

Transparent and consistent reporting on portfolio alignment, engagement strategies, tracking and reporting is an important element of asset owner–asset manager delivery of net-zero stewardship strategies. In particular, shareholder votes are critical. Some asset owners are considering strengthening their voting policies to drive progress towards their organisation’s commitment to a net-zero portfolio and real emission reductions. Where voting is largely delegated, the asset owner has the option of providing guidelines that outline expectations for the asset managers (an ‘expression of wish’). A case study example by Scottish Widows is included in the PAAO Progress Report.²⁹

Information Box 9

Collaborative Climate Engagement



Through Climate Action 100+, almost 700 investors responsible for over \$68 trillion AUM are engaging companies in improving their climate performance. In late

2022, Climate Action 100+ released [updated assessments of focus companies](#), including 14 Australian companies. Investors can use benchmarks and assessments to guide their corporate engagement priorities.

²⁷ OECD database.

²⁸ CA100+ is a global investor-led initiative to ensure the world’s largest corporate greenhouse gas emitters take necessary action on climate change.

²⁹ PAAO, ‘2022 Progress Report’, November 2022.

4.10 Climate Solutions Investments

Alongside decarbonising portfolios, investors are allocating more capital to climate solutions, which offer attractive investment opportunities and may also contribute to the decarbonisation of companies held in their portfolios.

Investment in climate solutions (and associated targets) can support real economy decarbonisation and increase the proportion of assets readily classified as at least aligned to a net zero by 2050 pathway.

Institutional investors play an important role in financing the net-zero transition, which will likely require investment of nearly \$130 trillion from now to 2050 in activities that support emissions reductions.³⁰ The gap between the current and required low-carbon finance flows in Australia, Japan and New Zealand is larger than in other advanced economies.³¹

Australia has significant natural and strategic advantages in producing and capitalising on opportunities related to climate change. An emission-constrained world will increase demand for existing and new export products, including green steel, aluminium, green hydrogen and many critical raw materials.³² Several major studies have demonstrated that Australia would benefit economically from a well-managed transition to net-zero emissions and could create new export industries.³³

Information Box 10

What is a Climate Solution?

A climate solution is an investment in an economic activity, good or service that contributes substantially to emissions reductions required by a 1.5°C pathway. Climate solutions can be classified as follows:

- 'Low-carbon' climate solution refers to activities with close to zero emissions that already make a substantial contribution to achieving net zero, for example, the leasing of passenger vehicles with zero tailpipe CO₂ emissions.
- 'Transitional' climate solution, which refers to activities that make a substantial contribution to the transition to net zero by reducing their own emissions, even if they are not yet low-carbon; for example, the manufacture of cement with CO₂ emissions intensity below a specific threshold, and the leasing of vessels with a large percentage of energy from zero-carbon fuels.
- 'Enabling' climate solution refers to activities enabling emissions reductions in the wider economy, for example, the manufacture of energy-efficient equipment for buildings and infrastructure for low-carbon road transport such as EV charging points.

Source: *IGCC Report (2022) Climate Investment Roadmap*.

The Net Zero Investment Framework recommends investors set a <10-year goal for allocation to climate solutions. This target aims to direct capital to the key activities, technologies, products and services required to support the decarbonisation of the economy across key industries and regions.

Climate solutions targets are quickly becoming the norm alongside decarbonisation targets, with 21% of investors now having set public climate solution investment targets, and another 32% actively considering setting targets.

Of the targets set, the target ambition ranges; for example, from 1–20% of AUM invested in climate solutions by 2030. Climate solutions targets are most commonly expressed as a proportion of AUM.

Some investors indicated they have not set public targets despite having assessed the baseline proportion of AUM invested in renewable and low-carbon asset solutions, while others have dedicated funds investing in this theme. Other investors have a public statement to increase allocations but have not publicly published a quantitative number.

Investors recognise that while some investments in transition opportunities are carbon intensive (and therefore in conflict with the need to decarbonise across portfolios), investing in the solutions is important, even where that does mean greater emissions in the shorter term. Therefore, investors find it useful to set climate solution targets alongside decarbonisation targets as part of effectively communicating to beneficiaries and stakeholders the varying actions to drive zero emissions.

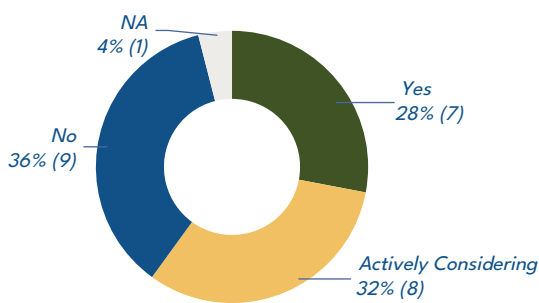
30 IGCC has identified more than \$131 billion in credible opportunities to deploy capital into climate-positive investments. See IGCC, '[Mapping Australia's Net Zero Investment Potential](#)', 2020.

31 S. Kreibiehl et al., '[Chapter 15: Investment and Finance](#)' [Draft], IPCC, 2022. This assessment includes only the requirements of transition financing and does not include climate change adaptation needs.

32 T. Campey et al., '[Low emissions technology roadmap](#)', CSIRO, 2017.

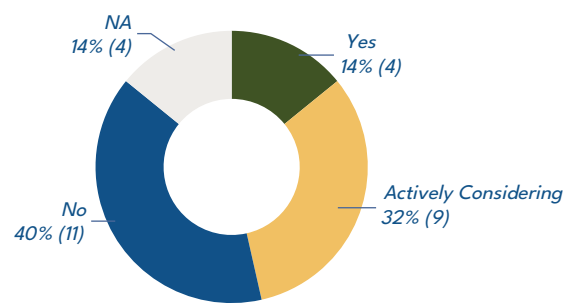
33 Deloitte Access Economics found Australia would grow its economy by \$680 billion, increase GDP by 2.6% and add 250,000 jobs by 2070 by adopting a comprehensive transition approach. See Deloitte Access Economics, '[A New Choice: Australia's Climate for Growth](#)', November 2020.

Chart 18: Investors with a public target for investment in climate solutions
Asset Owners



Do you have a public target for investment in 'climate solutions'?

Asset Managers



Do you have a public target for investment in 'climate solutions'?

The methodologies investors use to define and measure climate solutions investments vary and lack standardisation. Despite this, investors are moving forward by measuring baselines, setting targets and investing in climate solutions.

Investors use a range of methodologies and service providers to classify climate solutions investments. Many investors use a combination of methodologies depending on the asset class, and several are also developing their own proprietary classification systems. Asset owners are asking fund managers to explain their methodology with transparency.

How Investors Classify Climate Solutions

Managers and owners are using a range of frameworks and methodologies to define climate solutions. In particular, definitions and methodologies differ across private and public markets and assets. Some notable methodologies mentioned by investors include the following:

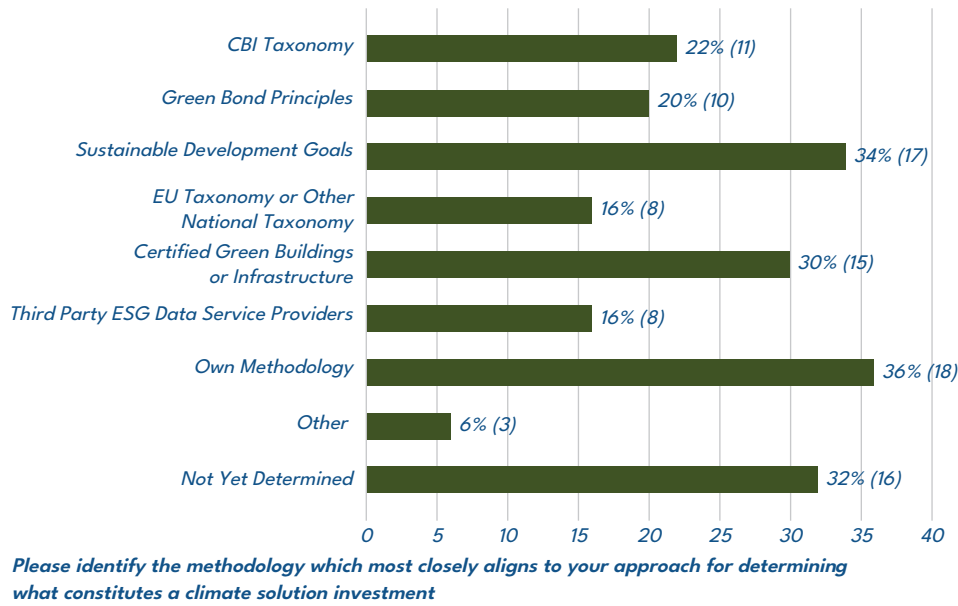
- Using the Sustainable Development Investments Asset Owners Platform (SDI AOP) to measure exposure to clean energy solutions.
- Classifying against SDGs 7 and 13, which cover renewable energy, energy efficiency and sustainable property.
- Drawing on external certifications or third-party verification, asset labels, and environmental standards.
- Using ICMA's Green Bonds Principles, Climate Bonds Initiative Taxonomy, or classifications based on inherently green infrastructure or buildings with high-energy performance ratings.

For their listed equity and corporate fixed income assets some investors are using service providers to determine green revenues (e.g., MSCI to determine EU Taxonomy alignment), and some investors use proprietary methodologies.

For listed equities, total financed climate solutions can also be measured by assessing the amount of a company's business activities (its revenues, CAPEX or OPEX) in climate solutions based on more granular corporate disclosures that align with a predefined list of climate solutions activities, such as from a sustainable taxonomy.

Investors also include unlisted entities or funds, such as climate impact Venture Capital or Private Equity funds, where the fund specifically targets and reports climate KPIs.

Chart 19: Methodologies being used for determining what constitutes a climate solution investment



Case Study 8 – CareSuper: Transition-related Investment Opportunities



Reaching Net Zero is not just about emissions reductions. The transition to a low-carbon economy will require significant capital and presents compelling investment opportunities.

CareSuper aims to invest at least 3% of its total portfolio in transition-related investment opportunities, helping its members benefit from the massive economic shift occurring as the world moves towards Net Zero. Our current investments in these opportunities span infrastructure and shares asset classes and go beyond the widely recognised opportunities in renewable energy to include other products and services benefiting from the transition. We have included three examples:

EV Charging

Electric vehicles have a significant role to play in reducing emissions from the transport sector. Through our infrastructure managers, we invest in a comprehensive network of EV charging stations in Europe. The prevalence and availability of fast-charging infrastructure is essential to prevent bottlenecks in EV adoption, to reach ubiquity, and ultimately to reduce GHG emissions.

District Heating and Cooling

CareSuper invests in district heating and cooling systems that generate strong returns for members while delivering climate-related co-benefits. These systems deliver heat and cooling from large central locations to individual buildings through underground infrastructure. Relative to conventional onsite generation, district energy provides benefits in including improved energy efficiency and reliability, and reduced emissions and maintenance costs.

Smart Grid Systems

Investment in the installation of smart energy grids for new housing developments is driving important changes at the consumer level. These smart energy grids typically comprise of decentralised on-site solar generation, communal battery storage, EV charging stations. This is paired with proprietary software to manage the demand-side response/load optimisation and complementary heat solutions (heat pumps) to deliver a package of decarbonised outcomes to residents.

Read more [here](#).

Case Study 9 – Cbus’ Offshore Wind Investment



Cbus has acquired a 10% interest in Star of the South, Australia’s first and most advanced offshore wind project. With a capacity of up to 2.2 gigawatts (GW), the project has the potential to power approximately 1.2 million homes,

supplying up to 20% of Victoria’s electricity needs and establishing a new clean energy sector in Victoria. Read more [here](#).

Case Study 10 – TelstraSuper’s Renewables Investment



In July 2021, TelstraSuper co-invested \$47 million with the QIC Global Infrastructure Fund to acquire the

Australian business of Tilt Renewables. Additionally, TelstraSuper’s Alternatives investment portfolio has an investment with CIM Group, which is developing Westlands Solar Park, one of the largest permitted solar parks in the United States. Read more about the case studies [here](#). This aligns with the TelstraSuper [Climate Change Action Plan](#), which is committed to increasing investment in transition opportunities.

Case Study 11 – IFM’s Large Scale Power Purchase Agreement



Enabling and supporting infrastructure portfolio assets to switch to renewable energy sources and improving energy efficiency is a strategy that IFM Investors are implementing globally.

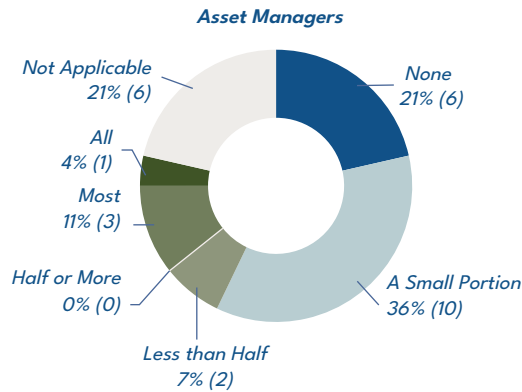
An example is the large-scale power purchase agreement (PPA) program IFM created to further support its Australian Infrastructure portfolio to procure renewable energy.

The first stage of this innovative and collaborative program, completed in early 2022, is expected to facilitate the supply of more than 400 GWh of renewable energy to power critical Australian infrastructure. Learn more about the PPA program and how IFM is investing in the energy transition [here](#).

Most mandates from asset owners do not refer to requirements for managers to invest in climate solutions. However, asset owners are beginning to ask managers to assess their exposure to climate solutions.

Only a small portion of mandates require climate solutions investments from external managers.

Chart 20: Mandates for 'climate solutions' investing.



Managers report that clients are interested in financing climate solutions, but mandates do not generally formally require it. This might reflect uncertainty in defining and classifying climate solution investments or the lack of investable opportunities in the market at this point. Again, some investors noted that these requests and dialogues often occur in less formal documents outside of IMAs/legal documents because of the dynamic state of the market. In any case, investment in climate solutions still appears low in the region, indicating much more work is needed by investors.

What proportion of your mandates from asset owners relates to 'climate solutions' investing?

Information Box 11

Climate Solutions Guidance



This IIGCC 2022 [Climate Investment Roadmap](#) report provides guidance to help investors determine climate solutions metrics, their applications and measurement methods.

The report includes an overview of investment trajectories (including investment needs by sector), a technology prioritisation framework for climate solutions, climate solutions metrics and benchmarks and a technical annex that includes an overview of climate solutions metrics and associated criteria.

The report explains that investors can use a green investment ratio and a priority net zero investment ratio to measure their current exposure to climate solutions in the short term.

In addition, see a paper here by IIGCC and FTSE Russell, [An LSEG Business: Green equity exposure in a 1.5°C scenario: Applying climate investment trajectories with green revenues](#). This paper aims to inform climate investment decision-making and build the green economy exposure of equity portfolios and climate benchmarks in line with a 1.5°C temperature scenario.

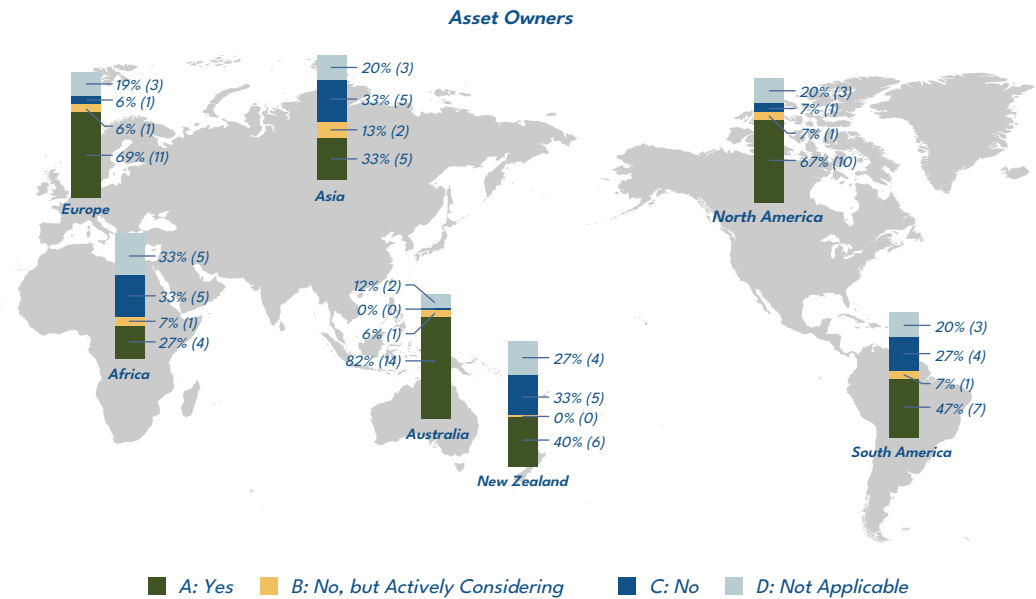
A range of regions and asset classes are considered attractive for climate solutions investment opportunities, including emerging markets.

There is ongoing appetite for investment in climate-aligned solutions that contribute to a net-zero economy.

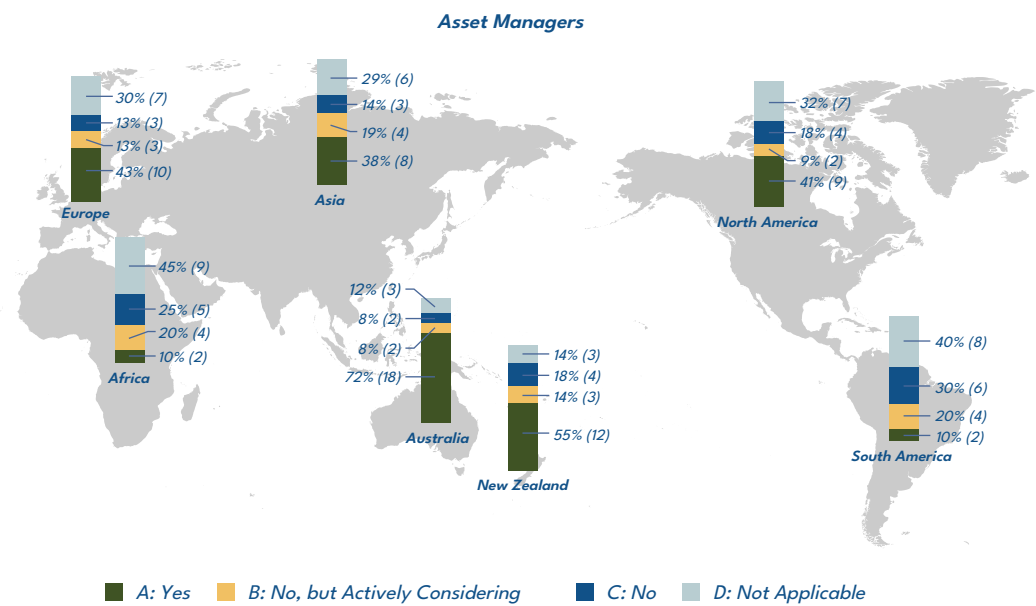
Investors indicated that they are or expect to invest in a range of different regions, including emerging markets. A 2018 World Bank Group’s International Finance Corporation report on *Climate Investment Opportunities in Cities* found a \$29.4 trillion climate investment opportunity in emerging markets cities by 2030.³⁴

At COP27 a key theme was to reach 1.5°C with limited overshoot, will require significant investment in emerging markets and developing countries. As such some investors have indicated they are open to increasing exposure to clean energy in emerging economies.

Chart 21: Investment in climate solutions across different geographical regions



Which markets do you/do you expect to be active in as part of your climate solutions investment strategy?

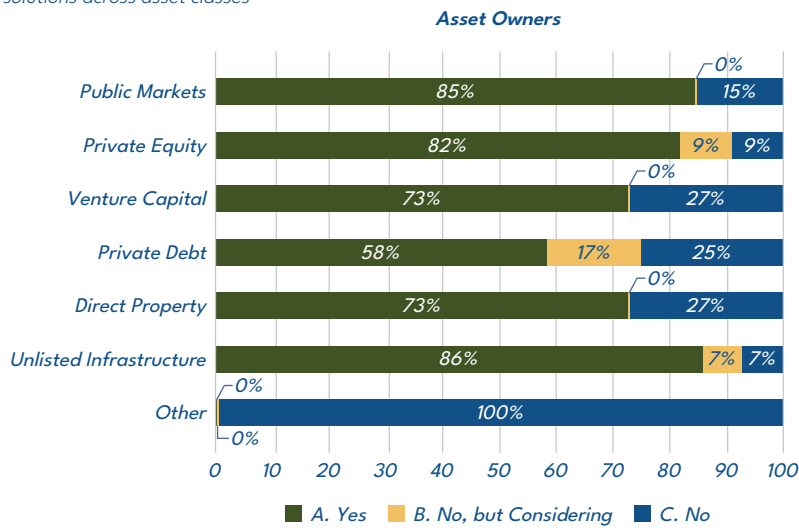


Which markets do you/do you expect to be active in as part of your climate solutions investment strategy?

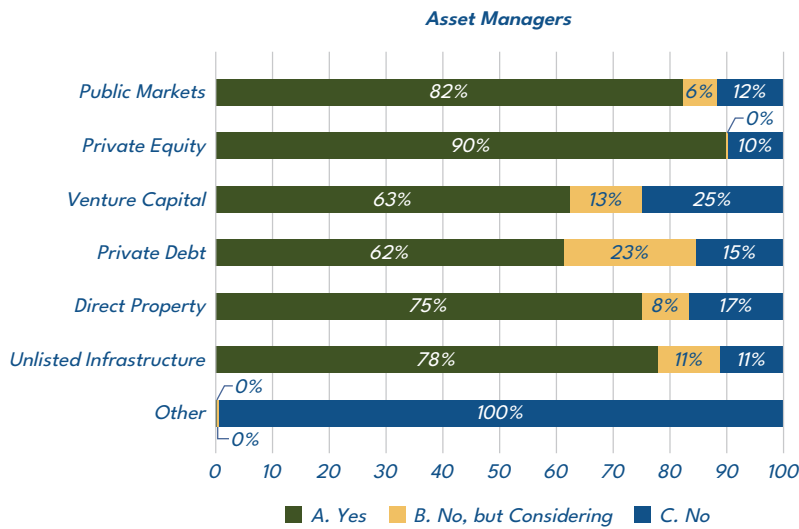
34 International Finance Corporation, ‘Climate Investment Opportunities in Cities. An IFC Analysis’, 2018.

Investors continue to actively seek investments in climate solutions across all asset classes. Investors are active in both public and private markets and across unlisted infrastructure, private equity, venture capital, private debt and direct property.

Chart 22: Investment in climate solutions across asset classes



Which markets do you/do you expect to be active in as part of your climate solutions investment strategy? Select from one of the following for each category A. Yes B. No, but actively considering C. No D. Not applicable



Which markets do you/do you expect to be active in as part of your climate solutions investment strategy? Select from one of the following for each category A. Yes B. No, but actively considering C. No D. Not applicable

Case Study 12 – Munro Partners – Climate Change Leaders Fund



Munro Partners is a Melbourne-based investment manager with a core focus on global growth equities that benefit from some of the key structural changes happening in our world today.

The key structural change today is decarbonisation. Companies that enable decarbonisation form one of Munro's largest exposures, focusing on four sub-themes (clean energy, energy efficiency, clean transport and circular economy) related to the world's move towards net zero.

Additionally, the Munro Climate Change Leaders Fund is a dedicated thematic fund focused exclusively on creating a portfolio of climate winners that help enable the decarbonisation of the planet—those companies that are best positioned to champion and win from this structural change. This differs from traditional low-carbon funds that simply take an index approach skewed towards companies with low operational emissions regardless of whether they contribute to decarbonisation.

Read more about the Climate Change Leaders Fund [here](#).

In responding to the survey, investors indicated that most climate solutions investments made to date are in renewable energy, but many investors have also made significant investments in clean technologies, energy storage, low-carbon transport and green/

sustainability bonds. Some investors have made investments in natural solutions (biodiversity and land use) and assets that generate carbon credits. Other investors noted investments in sustainable agriculture, waste management, energy efficiency, etc.

Case Study 13 – Investible – Climate Tech Fund



Last year, Investible launched its third early-stage VC fund. The Investible Climate Tech Fund focuses on identifying, funding and supporting visionary founders to help the world decarbonise. The Fund is seeking to invest in early-stage climate tech companies delivering a net-zero future and will focus on deploying capital into companies that are represented in the UN Environment Programme's Six Sector

Solution to Climate Change: Energy, Buildings and Cities, Food and Agriculture, Transport, Industry and Land and Forest.

The Fund, which has announced its first 10 investments—has reviewed over 1,900 potential investment opportunities and remains open to new investor interests. The convergence of regulatory, market and technological tailwinds makes now an opportune time to invest in solutions within this critical sector, helping usher in a resilient and sustainable future. Read more [here](#) and [here](#).

Investors are considering setting other climate-related targets to drive action and accountability.

While the main targets set by investors correlate with the four targets recommended in the Net Zero Investment Framework (see information box 4), examples of other targets that investors indicated they have set include:

- Target for sustainable buildings and a resilient business, which includes climate change adaptation plans across all standing assets and developments
- 1% of FUM to impact investments by 2026
- Commitment to eliminating forest-risk agricultural commodity-driven deforestation activities at companies in investment portfolios by 2025.

5. Theme 2: Climate Governance and Strategy

Most investors (77%) now have a climate policy in place.

A climate change policy is a formal documentation of an organisation’s position and principles on climate change. It may be a standalone policy, but a comprehensive climate section is often embedded into responsible investment, ESG, stewardship policies, etc., or investors publish a ‘climate change statement’.

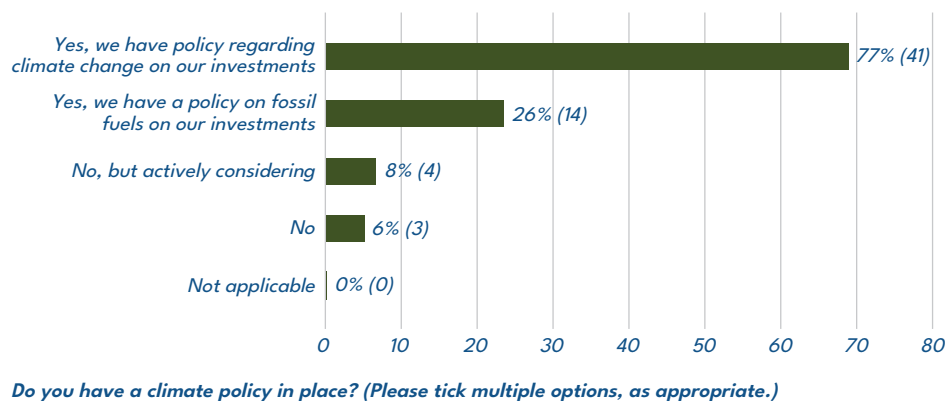
These results are consistent with information from an IGCC member survey conducted in 2022, which indicated that 100% of members (53 investors out of 53 who responded) had adopted a climate policy.

Based on the question below on fossil fuel exclusions, it seems that several signatories have fossil fuel exclusions but did not note that as part of their formal climate policy documents, perhaps because they are contained in a separate fossil fuel exclusion framework or exclusions are agreed upon in specific mandates.

On the global stage, NZAM expects signatories adopt and disclose a robust and science-based policy for fossil fuel phase-out. The policy should recognise the need for a just transition and reflect regional differences in speed and phase-out consistent with IPCC 1.5°C scenarios. The PAII Net Zero Investment Framework recommends that investors ‘should not allocate additional capital to companies planning or constructing new thermal coal projects, associated



Chart 23: Investors with a climate policy



infrastructure, or new exploitation of tar sands. Where relevant, investors should use active and escalating engagement to ensure no new thermal coal generation is developed and no further tar sand resources are exploited, and also that phase out of existing unabated capacity and activity is undertaken in line with net zero pathways’.

The UN Race to Zero also recently published [updated 2022 Race to Zero \(RTZ\) criteria](#), asking investors to pledge to adopt the policies needed to achieve the ‘phase down and out [of] all unabated fossil fuels’. The RTZ criteria recognise the necessity of phasing out *all* unabated fossil fuels to achieve a 1.5°C scenario with no or low overshoot. According to the latest R2Z [Interpretation Guide language](#), each RTZ member ‘shall phase out its development, financing and facilitation of new unabated fossil fuel assets, including coal, in line with appropriate global, science-based scenarios’.

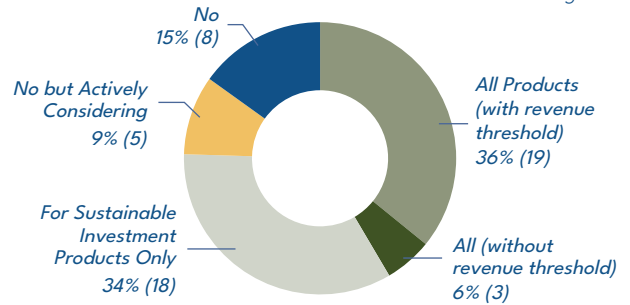
Fossil fuel exclusions are part of investment strategies, with 76% of investors having some form of climate-related exclusion in their portfolios. More than 40% of investors have exclusions across all products (with or without revenue thresholds), and 34% have exclusions only for sustainable investment products.

Given its market composition and policy landscape, the Australian market poses a challenge for investors to balance their strong focus on engagement and decarbonising assets with strategies such as exclusion and divestment. This challenge is heightened by the most

recent IEA Net Zero by 2050 report, which highlights that there can be no investment in new fossil fuel supply projects if the global 2050 net-zero goal is to be met with no or limited overshoot.³⁵ One investor respondent noted that they ‘exclude all new oil and gas’.

Readers can look at the fossil fuel policy case study of Pensioenfonds Zorg En Welzijn (PFZW) on page 36 of the PAAO Progress Report which details how PFZW sets two-year expectations for fossil fuel companies and will only remain invested where they have a convincing and verifiable climate transition strategy in line with the Paris Agreement by 2024.

Chart 24: Investors with climate-related exclusions or divestment targets



Do you have climate related exclusions or divestment targets?

Case Study 14 – Fidelity International – Phasing Out of Financing for Coal-fired Power Plants



Responsible phasing out financing for coal-fired power plants (CFPPs) is crucial. We initiated a thematic engagement with banks on financing such plants in Asia, initially focused on Singaporean banks, and since then expanded to banks in Japan and China.

We encourage regional banks to readdress their CFPP financing projects and improve their disclosure. All three leading Singaporean banks committed to cease financing new CFPP in new markets, which later extended to Japanese banks.

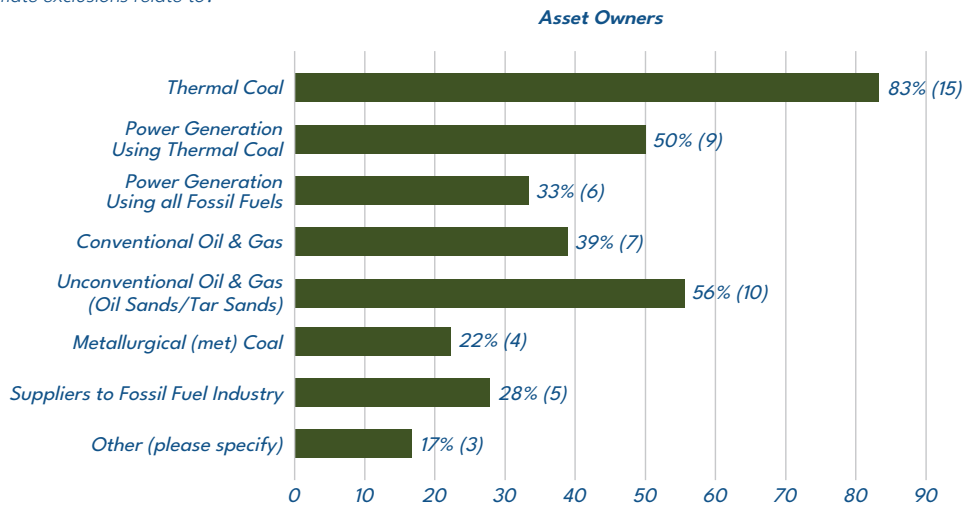
The outcome: These banks tightened their coal policies by reducing the exceptions previously allowed and stating that they would no longer finance the new construction of coal power.

Learn more here: [Putting a stop to coal financing | Fidelity Australia](#)

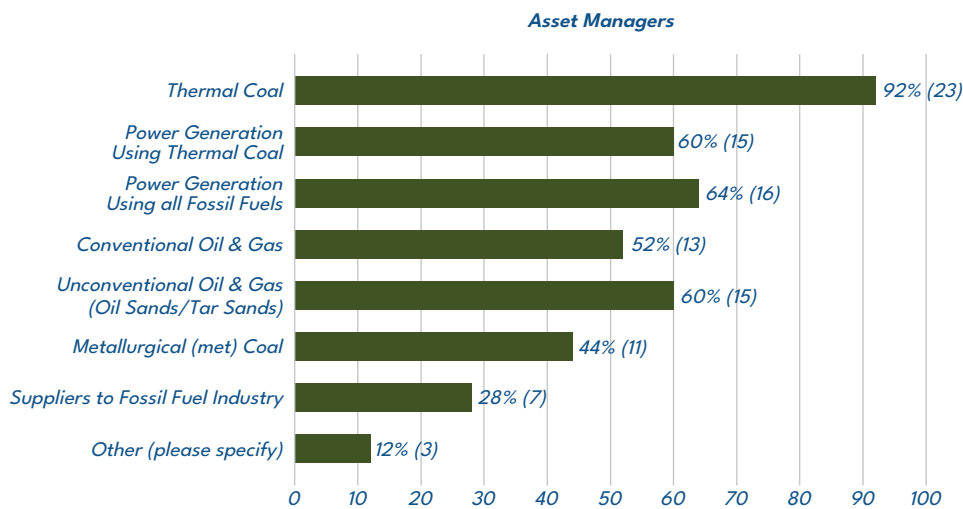
35 IEA, ‘Net Zero by 2050. A Roadmap for the Global Energy Sector’, October 2014.

Of investors climate exclusions, 88% exclude thermal coal, 47% exclude conventional oil and gas, and 35% exclude met coal.

Chart 25: What do climate exclusions relate to?



What do the climate exclusions or divestment relate to? (Please tick all those that apply)



What do the climate exclusions or divestment relate to? (Please tick all those that apply)

Nearly all asset owners and managers with fossil fuel exclusions (either for their whole portfolio or sustainable investment options) apply their exclusions (generally with revenue thresholds) to thermal coal and other fossil fuels. More than half of all investors exclude power generation using thermal coal or all fossil fuels. Some investors indicated that the exclusions apply to new oil and gas, met coal and tar sands

5.1 Climate-Related Disclosures

Fifty-three per cent of investors now complete annual TCFD-aligned reporting, with 26% stating they are planning to over the next year.

Only 21% of respondents noted that they are not, or do not plan to (over the next year), complete TCFD-aligned reporting. This finding is consistent with the responses received in 2021.

Of those who have not yet reported in line with the TCFD publicly, several investors indicated that they conduct internal analysis based on the TCFD framework, while another investor noted that they only do this reporting every three years (although they update the board more frequently).

While this represents an increase in TCFD-aligned reporting over the past few years, the total number of TCFD disclosures remains somewhat low. Low numbers may reflect prioritisations of investors who are keen to focus on climate-specific investing or engagement outcomes/reporting over TCFD-aligned reporting (including citing limited internal staffing).

There is growing momentum towards mandatory reporting among Australia’s international peers and trading partners to address the mispricing of climate risks and opportunities in financial markets.³⁶ Several investors noted that their primary reporting responsibility is to clients to provide the appropriate reporting and data they require, and in doing so, they do leverage the TCFD framework. Other investors noted that they report on the metrics and targets of the TCFD recommendations annually, and many elements are included in their climate change statement; however, the entire suite of TCFD-aligned reporting is not currently an annual reporting task.

These results will likely continue to shift at an increasing rate as requirements such as APRA climate change guidelines continue to encourage large funds to make better disclosures, which will have a flow-on effect across the value chain, as well as the development of other international standards, including ISSB and mandatory international disclosures across global markets.

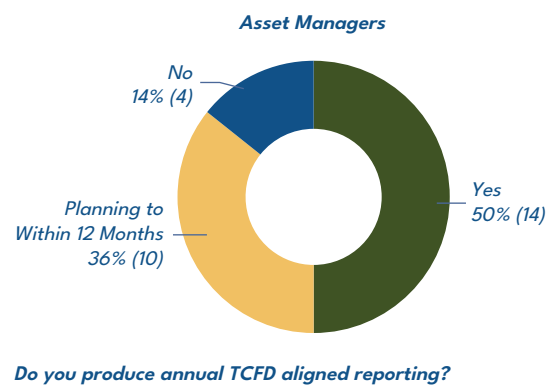
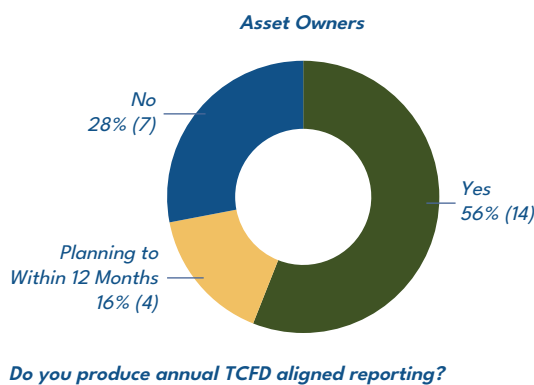
Information Box 12

Mandatory TCFD in Australia



Confusion to clarity: A plan for mandatory TCFD-aligned disclosure in Australia (June 2021), [here](#) details actions regulators and the Australian Government can take to build on existing work to ensure there is consistent and comparable reporting from companies, investors, banks and insurers.

Chart 26: Proportion of investors producing annual TCFD-aligned reporting



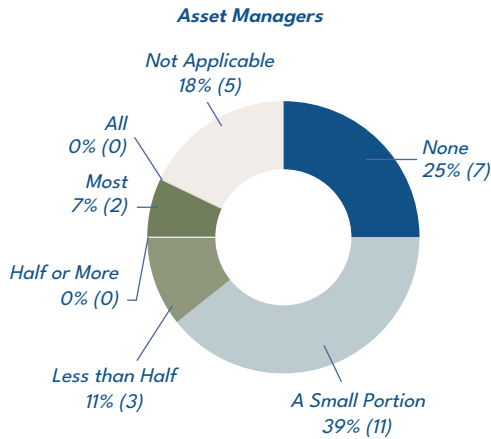
³⁶ Jurisdictions that have introduced (or will be introducing) mandatory disclosure include Belgium, Brazil, Canada, Chile, the European Union, France, Hong Kong, Japan, New Zealand, Singapore, Sweden, Switzerland and the United Kingdom. See IGCC et al., *Confusion to Clarity: A Plan for Mandatory TCFD-aligned Disclosure in Australia*, June 2021; Task Force on Climate-related Financial Disclosures, *2021 Status Report: Task Force on Climate-related Financial Disclosures*, October 2021.

Most managers responded that only a small portion of their asset owner clients require annual TCFD-aligned reporting.

Asset owners generally do not require annual TCFD-aligned reporting by asset managers.

Asset owners do not appear to be asking managers to complete annual TCFD-aligned reports. Some managers reported that reporting aligned with TCFD is inferred in client discussions or encouraged but not formally required.

Chart 27: A question for asset managers – What proportion of asset owner clients require annual TCFD reporting?



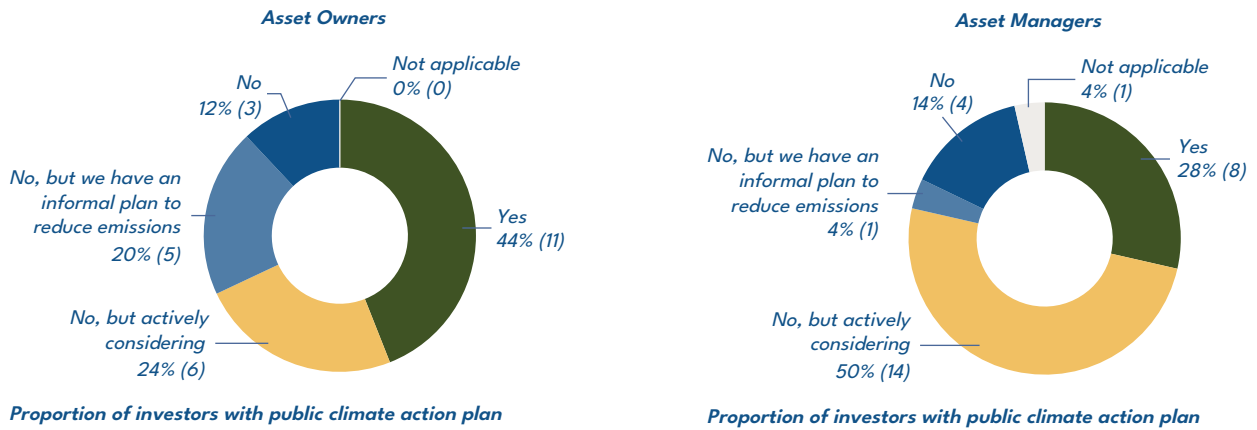
A few asset owners noted that they do not specifically require TCFD-aligned annual reporting from managers yearly but may require a combination of data sources (e.g., emissions data where the asset owner is unable to obtain data from third-party sources, data regarding assets in transition opportunities, interim manager targets, etc.).

It appears that asset owners are sympathetic to time constraints on managers and are focused on supporting managers in taking portfolio actions rather than reporting along these lines.

What proportion of clients require annual climate reporting (e.g., annual TCFD reporting)? Select one from the following (approx.), in terms of AUM

Investors recognise the need to publish climate action plans, with 36% of investors and another 38% actively considering. Climate action plans are being published in a range of formats.

Chart 28: Proportion of investors with a public climate action plan



IGCC encourages investors to adopt and publish an 'Investor Climate Action Plan' (also known as a 'climate transition plan', 'net zero roadmap', etc.) setting out the forward-looking actions, goals and accountability mechanisms for the organisation to reduce emissions and invest in climate solutions over the short-, medium- and longer term. The Race to Zero Starting Line criterion emphasises that transition plans must include immediate actions the institution will take to achieve its interim targets.³⁷

We see a range of formats of climate action plans that meet existing investor reporting preferences, whether standalone plans or several are integrating net-zero targets and plans into their TCFD and sustainability reporting, publishing website blogs or shorter documents containing KPIs for action over the next one to three years.

Information Box 13

Investor Climate Action Plan (ICAPs) Framework



The *Investor Agenda's ICAPs Ladder and Guidance* is designed to help investors plan and assess their actions on climate change, regardless of where the organisation is in its climate journey.

The ICAPs Ladder sets out a summary of actions over four tiers denoting progress on climate action in five focus areas applicable to all investors to help investors prioritise forward-looking actions. Investors wanting to be net-zero leaders should rapidly climb to Tier 1 across all focus areas.

Case studies for Investor Agenda ICAPs, including those published in November 2022 from Cbus and First Sentier Investors [are available here](#).

For maximum credibility investors may choose to fully integrate their climate transition strategy with their overall fund strategy. The ICAPs Ladder (see information box 13) provides a useful framework for developing investor climate change roadmaps.

³⁷ The *Race to Zero criteria* is driven by science and defines procedural steps for all actors in the Race to Zero. This criteria is not investor specific (it also applies to companies, cities, states and regions). The criteria serve two purposes: (1) to ensure the credibility of the Race to Zero campaign by laying out clear benchmarks for Partners and Members based in science and best practices and (2) to support all actors to set strong targets and work together to improve them over time.

5.2 Governance

Investor climate governance is progressing quickly, with nearly half of all investors’ boards having formal oversight and accountability to net-zero commitments, with disclosure of this in annual reporting.

Appropriate governance and a portfolio-wide strategy provide the basis for portfolio alignment and broader actions by an investor to achieve net-zero goals. Climate change should be central to the organisation’s strategic plan, and the climate strategy fully endorsed by the board.

The survey indicated that:

- 45% of investors’ leadership teams have formal oversight and accountability for net-zero commitments and are disclosing this in annual reporting
- 42% have defined roles and responsibilities in place for overseeing and implementing the organisation’s commitments on climate change but are not currently disclosing this
- 53% report climate change as being incorporated in board-endorsed strategic planning
- Only 12% are unsure or are not satisfying the above but are actively considering.

The survey shows that most investors have adopted, or are adopting, fit-for-purpose climate governance processes and structures.

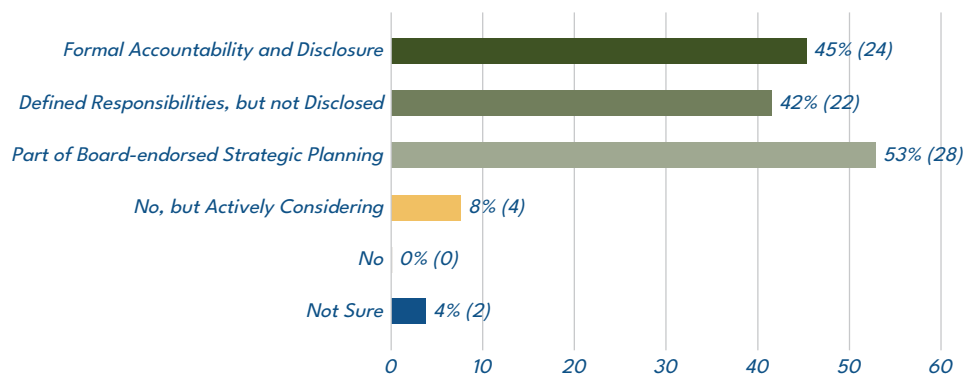
Information Box 14

What Investors Expect of Company Directors on Climate Risk



The 2021 IGCC report ‘What investors expect of company directors on climate risk’ finds that Australian company directors lack the skills and experience to lead the corporate transition to net-zero emissions by 2050, and it is unclear how they are addressing this gap. Investors are increasingly pressurising company directors to address the systemic risks of climate change. Investors expect a company’s climate transition strategy to fully integrate into its overall strategy.

Chart 29: Investor governance structures and practices

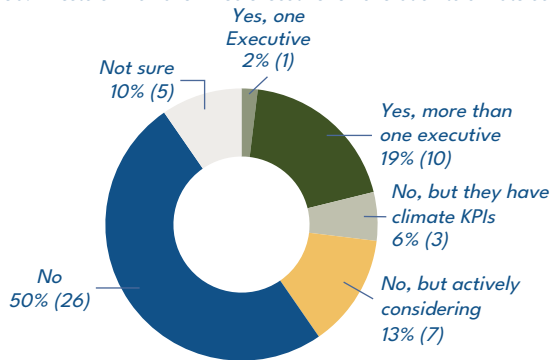


Please indicate if your institution’s governance structure and practice includes any of the following: (tick those which are applicable)

Twenty per cent of investors have linked executive remuneration to delivering climate targets, but the majority have not.

Climate metrics are moving to the mainstream as a factor in executive remuneration. Twenty-one per cent of investors have already linked executive remuneration to climate, with a further 13% actively considering doing so. This approach aligns with what investors are asking of their portfolio companies. However, 50% of investors responded 'no', suggesting that they are not yet actively considering this. An alternative to linking executive remuneration to climate outcomes would be to regularly make climate reports to the board, define formal climate change responsibilities and ensure that boards (and staff) have regular training on climate risks and opportunities.

Chart 30: Investors who have linked executive remuneration to climate outcomes



Has your organisation linked executive remuneration to delivering climate targets and the transition?

Some comments by investors included:

- *‘Executives and Senior Management have individual KPIs linked to a balanced scorecard (disclosed in the Annual Report) with “Environment” being a key component’.*
- *‘The KPI used to assess performance of professionals in relation to their RI objectives relate to the implementation of our ESG policies regarding exclusions, materiality of impact of ESG factors on future cashflows and valuation, the specific ESG requirements of investment mandates being met and engagement with investee companies and universe companies as required. These KPI are mostly qualitative, except where there are specific ESG requirements within investment mandates. The KPI do differ depending upon the roles of the individuals and their responsibilities; i) development of ESG philosophy and the monitoring of its implementation ii) implementation of ESG’.*
- *‘Performance evaluations of our research analysts include an assessment of whether analysts demonstrate depth of knowledge of the key ESG issues in their sector and company views. In addition to compensation based on the quality and depth of their research, analysts are eligible to receive discretionary bonuses according to how successfully investors implement their recommendations in client portfolios across the firm’.*

5.3 Carbon Offsets

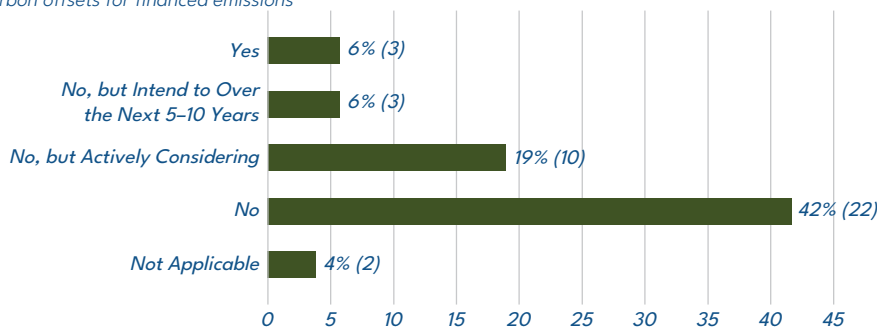
Investors are generally not using offsets for their portfolio emissions, focusing instead on ensuring the assets themselves are aligned with net-zero pathways.

Rather than offsetting their way to net zero, investors appear to be focusing first on ensuring that their assets are aligned with net-zero pathways. Only one real estate investor (already net zero) indicated that they are currently using offsets as part of their financed emissions. However, 19% of investors are considering the application of carbon offsets to their portfolio emissions.

Although investors appear to be encouraging companies to follow the ‘mitigation hierarchy’ and prioritise emissions reductions within their value chain before any offsetting measures, discussion continues around the role for investors (and companies) in using

offsets to balance out residual emissions as part of their net-zero strategies on the way to 2050, recognising the need to scale up the market for carbon offsets in anticipation of the residual emissions estimated at 2050 and to contribute to biodiversity outcomes. Despite this, only 6% of investors indicated that they intend to use offsets for their financed emissions over the next 5–10 years, with some investors commenting that they believe the decision to utilise offsets rests with the assets themselves and that assets should prioritise reducing emissions over offsetting.

Chart 31: Investor use of carbon offsets for financed emissions



Do you use carbon offsets for your financed emissions?

One-quarter of investors are carbon neutral at an organisational level.

Investors are going carbon neutral for their own operational emissions. The investor community recognises that emissions associated with their investments dwarf the emissions associated with their own operations; thus, the focus remains on financed emissions and the real-world impact of investors’ core business. That said, the investor net-zero initiatives (NZAM and PAAO) expect that investors will also target net-zero emissions by 2050 or sooner for their operational emissions and implement emission reductions.

Case Study 15 – Dexus – Achieving Net Zero



Dexus has achieved its commitment of net-zero emissions across the group-managed

portfolio by 30 June 2022. Delivering net-zero emissions across managed property operations is a key milestone that reinforces our commitment to act on climate change. Achieving net zero also aligns with changing customer and investor sentiments towards low-carbon investments. Since FY08, we have been working to continuously improve the group portfolio’s energy efficiency and associated emissions through building operations, transactions and developments. As at FY22, we have reduced emissions intensity by 62%. Of the remaining emissions, approximately 81% has been avoided by transitioning to renewable electricity, and 19% has been balanced through carbon offsets. This achievement delivers strong climate action for the planet, enhances our vision for smart, sustainable workspaces and is being certified by Climate Active.

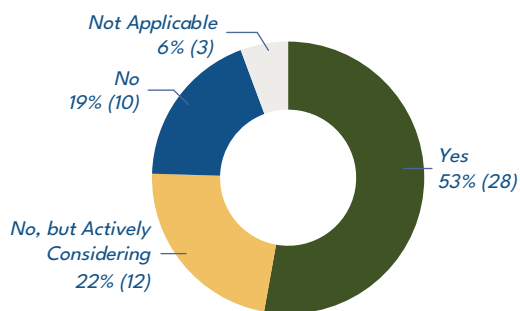
Read more in our 2022 Sustainability Report [here](#).

5.4 Just Transition

Over half of the investors materially integrate just transition as part of their portfolio management and investment strategies.

The survey responses show that investors are increasingly seeing the management of the impact of fossil fuel asset closures on workers and communities as integral to net-zero commitments. Fifty-three per cent of investors have materially integrated just transition considerations as part of their portfolio management and investment process, with another 23% actively considering.

Chart 32: Material integration by investors of just transition into portfolio management/investment strategies



Is Just Transition materially integrated as part of your portfolio management and/or investment strategy?

The concept of a ‘just transition’ recognises that while the transition to a net-zero emissions economy will provide many benefits, there will also be transitional challenges for workers, communities and countries that rely heavily on fossil fuel reserves for their livelihoods or economic growth.

To ensure that the transition moves forward at the speed required in the tight timeframe between now and 2030 to halve emissions in line with 1.5C aligned trajectories, the advantages and costs of the transition must be fairly distributed to ensure enduring community support, without which the transition will be costlier and slower.

Investors play an important role in ensuring a just transition through their corporate engagement, investment strategy, capital allocation, advocacy, partnerships, etc.

Investors commented that:

- ‘We try to understand the company’s plans around equitable just transition and how they are looking at skilling the current workers.’
- ‘An orderly transition will reduce the negative impacts to those employed or otherwise economically dependent on the fossil fuels sector, by facilitating new employment and economic opportunities to enable a ‘just transition.’

Interestingly, another investor indicated that:

- ‘We believe the transition to net zero is inevitable, but ensuring a just transition is not guaranteed. Being green does not inherently mean being fair. It is critical to understand and act on this concept now, as we lay the foundations for the decisive decade ahead. Investors need to take a sophisticated approach to create system-positive change. This ensures investment decisions are made holistically, with honest conversations about trade-offs...’

Information Box 15

Investor’s Role in an Equitable Transition to Net Zero

IGCC’s July 2021 report, [Empowering Communities: How investors can support an equitable transition to net zero](#), details the key actions for investors to integrate just transition considerations across investments and helps investors manage the challenges of the transition from fossil fuels to decent work and thriving communities in the renewable economy.

A just transition combines the need for climate action with the consideration of social inclusion, through an economy-wide process which aligns to a sustainable future with the creation of decent work and quality jobs, net zero emissions and thriving communities.

The 2015 Paris Agreement specifically takes into account the imperatives of a just transition and the creation of decent and quality jobs in accordance with nationally-defined development priorities and making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development (Article 2).

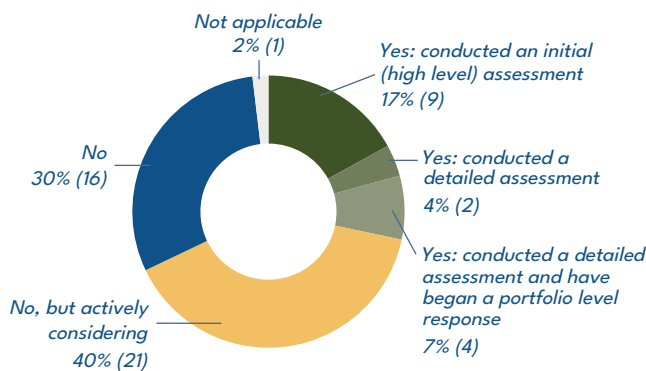


5.5 Biodiversity

Most investors have not yet conducted an assessment or integrated a response to biodiversity. This means that capital markets may be under-pricing the implications of biodiversity loss and not adequately integrating biodiversity into investment processes.

Although nature loss poses a major risk to businesses, and while moving to nature-positive investments offers opportunities, investors are struggling to get started with risk assessment, action and investment in this area.

Chart 33: Investors who have conducted an assessment or integrated a response to biodiversity/nature



Regarding biodiversity/nature, have you conducted an assessment or integrated a response to biodiversity/nature?

Only 17% of investors have conducted an (initial) high-level assessment of nature and biodiversity risks, with 40% actively considering this, showing intent is present but prioritising biodiversity investment opportunities and management is a challenge (presumably given the stronger pressure to focus on decarbonisation, combined with a lack of methodologies, tools and metrics for biodiversity). Some investors noted that they are waiting for guidance for corporates in line with the Taskforce for Nature-related Financial Disclosures (TNFD), providing a framework for developing and delivering nature-related risk management and disclosure. Investors noted that the level of education among companies on biodiversity and TNFD remains low, indicating the need for further corporate engagement in this area.

Eight per cent of investors did note that they have conducted a detailed assessment and implemented a portfolio-level response to invest in biodiversity. Some investors indicated that they are starting with certain ESG rating models that cover some biodiversity factors, while other investors have committed to implementing a biodiversity reporting system.

Case Study 16 – Australian Ethical – Carbon Sequestration, Food Emissions and Protection of Wildlife



In FY22, we were invited by an external fund to invest in carbon sequestration projects through acquisition of underutilised Australian pastoral land and establishing carbon farming projects to generate carbon offsets through human-induced regeneration. We had some initial concerns. Taking into account animal welfare, climate and other environmental impacts, we avoid investing in conventional animal agriculture and invest instead in lower emissions plant-based nutrition. While carbon sequestration projects have clear potential for positive climate and biodiversity outcomes, there is a risk that those positive impacts will not be delivered, as well as the risk of negative side effects. For example, total beef sector emissions might increase if sequestration projects of this type bolster the economics of the sector; or biodiversity may be harmed, particularly when wildlife are excluded from revegetated areas by exclusion fencing.

We engaged with the manager about our concerns. The fund agreed to appoint independent biodiversity and animal welfare experts (approved by us) to set biodiversity targets and parameters, and to review land lease terms to require farmers to adopt higher than industry standards of animal welfare. We confirmed that the company would not own livestock; that the pastoral land leases would be for existing cattle grazing land; and that lease revenue – relative to expected revenue from carbon offsets – would be below our tolerance thresholds. We concluded that rather than increasing the negative impacts of the livestock sector, this project has the potential to reduce some of those impacts. We agreed to invest, and will monitor whether the projects meet their climate and biodiversity objectives.

Read more [here](#).

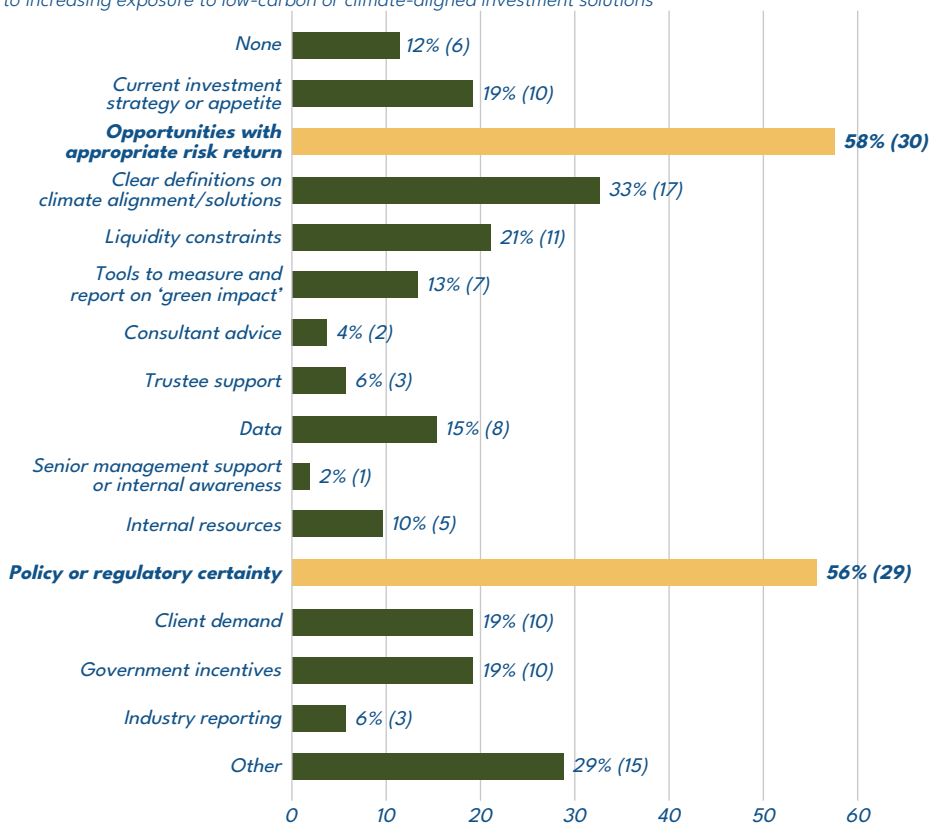
6. Theme 3: Barriers to Climate Investment

Over 2022, investors have indicated that a stronger national 2030 emissions target, bipartisan support for net zero emissions by 2050, the passage of the Australian Climate Change Act, and other climate policy reforms at a sector and state level, are starting to address policy and regulatory uncertainty for investors in Australia. However, key challenges remain for policies to accelerate 1.5°C-aligned investment opportunities with appropriate risk-return.

Policy uncertainty among respondents has been a key issue since commencement of this survey in 2017. Investors commented that, after a multi-year period of policy uncertainty, the passage of Australian climate bills (including Australia legislating its Nationally Determined Contribution of 43% by 2030) and other climate policy reforms are starting to address policy and regulatory uncertainty for investors in Australia.

This is reflected in the data; as of the last year, 70% of investors highlighted policy uncertainty as a key barrier to investment in Australia, compared to 53% this year. However, climate policy uncertainty does remain a barrier, along with a lack of appropriate investment opportunities.

Chart 34: Main barriers to increasing exposure to low-carbon or climate-aligned investment solutions



In your view, what are the main barriers to increasing your exposure to low carbon or climate aligned investment solution? Respondents can select the top three. Answers to be read as "lack of".

Climate change policy stability and political consensus is critical for investors' confidence to deploy capital towards climate solutions. Credible long-term market signals, as well as stronger political consensus, are required to reverse the historic trend of turbulent climate policymaking in Australia and avoid capital flight.

Australia must accelerate climate action to compete in the global race for clean capital. Economic modelling for IGCC has shown that Australia would create \$63 billion in fresh investment opportunities over the next five years by strengthening climate targets and policies in line with reaching net-zero emissions by mid-century.³⁸ Under the right policy conditions, private investors can deploy significant capital to drive a just transition to net-zero emissions, build resilience to the physical impacts of climate change, and support national goals around energy security and industry development. Government policies provide signals and incentives that direct the flow of capital across the global economy.

HESTA Super Fund Chief Investment Officer Sonya Sawtell-Rickson stated (in IGCC's report 'Investment Policy for a Net Zero Emissions Economy'):

'This is a critical decade for climate action. It's vital that government encourage and facilitate accelerated investment by establishing long-term policy and regulatory clarity, which will help attract investors and enable them to underwrite opportunities with higher certainty to achieve appropriate risk-adjusted returns while supporting the transition.'

Regarding another barrier highlighted by investors—a lack of opportunities with appropriate risk-return objectives—this can be addressed in part by policy settings that explicitly consider the role of institutional investors in the capital stack, a policy mix that

drives both supply and demand for climate solutions, and policy instruments that support the aggregation of multiple projects into institutional investment scale opportunities (e.g. >\$0.5 billion). Other investors noted a lack of internal expertise across the full range of activities in the climate sector as a barrier.

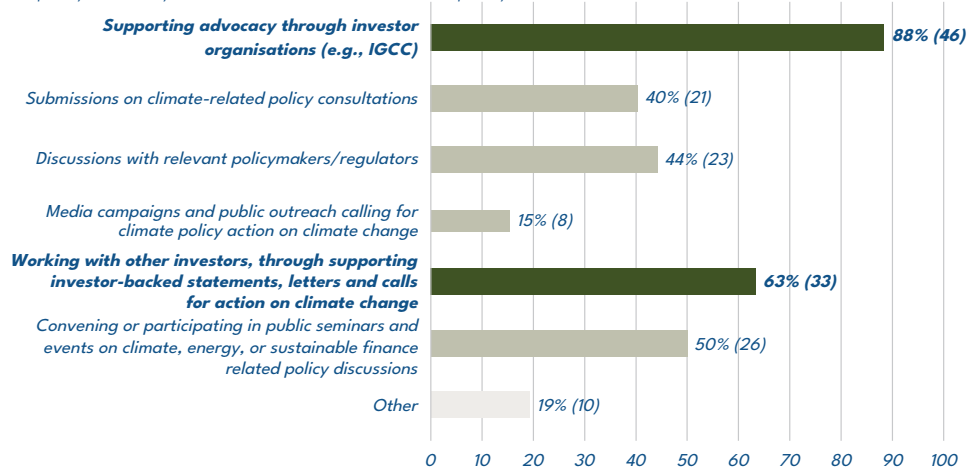
Investors are increasingly focused on undertaking policy advocacy to drive the transition in Australia.

The policy and regulatory environment can either help or hinder investors from aligning portfolios and the transition of assets within portfolios. For example, policy frameworks can help unlock capital flows to low-carbon technologies and solutions and ensure investors have sufficient flow of quality, comparable and decision-useful information for assessing the credibility of asset transition plans. Therefore, engagement with policymakers, regulators and other stakeholders should form a core part of an investor's net-zero strategies.

Most notably, in the past year:

- 89% of investors supported policy advocacy through investor organisations (e.g., IGCC)
- 64% worked with other investors through supporting investor-backed statements, letters and calls for action on climate change (e.g., see information box 16 on the Global Investor Statement)
- 49% convened or participated in public seminars and events on climate, energy or sustainable finance-related policy discussions
- 45% had discussions with relevant policymakers/regulators
- 38% made submissions on climate-related policy consultations.
- Few investors (only 16%) conducted media campaigns and public outreach calling for climate policy action on climate change.

Chart 35: Types of climate policy advocacy investors have undertaken in the past year



Please indicate any of the following types of policy advocacy you have undertaken in the past year regarding climate change.

38 IGCC, 'Mapping Australia's Net Zero Investment Potential', 2020.

Information Box 16

2022 Global Investor Statement to Governments on the Climate Crisis

Signed by 532 investors globally, the statement advocates that governments enact ambitious policies that leverage the private capital required to effectively address climate change.

The 2022 statement contains the most ambitious policy recommendations from investors to date, including five priority actions:

1. Ensure that 2030 targets in Nationally Determined Contributions align with the 1.5°C temperature goal.
2. Implement domestic policies across the real economy and take early action to deliver 1.5°C-aligned 2030 targets.
3. Contribute to the reduction in non-carbon dioxide GHG emissions and support the effective implementation of the Global Methane Pledge.
4. Scale up the provision of climate finance from the public and the private sector for mitigation, and for adaptation and resilience, with a particular focus on the needs of developing countries.
5. Strengthen climate disclosures across the financial system.

Read the full statement [here](#).

Investors are flagging several key priorities for the new Australian Government.

Recent climate policy developments have reduced investors' uncertainty. However, further climate policy reforms are required. Investors noted a significant range of priorities for the Australian Government.

The top priorities (in order) noted by investors for the new Australian Government include:

1. 46% – Setting 1.5°C aligned sector by sector pathways and plans:

Establishing 2030 to 2050 sector targets to guide policy development will inform investor expectations on future policy. It will also establish performance benchmarks for future policy review and development. Sector targets contribute to a clear framework for investors and the companies they own, guiding business strategy, targets and metrics and allocation of capital towards new technology and/or other expenditure.

2. 44% – Improved approach to carbon pricing (Safeguard Mechanism, etc):

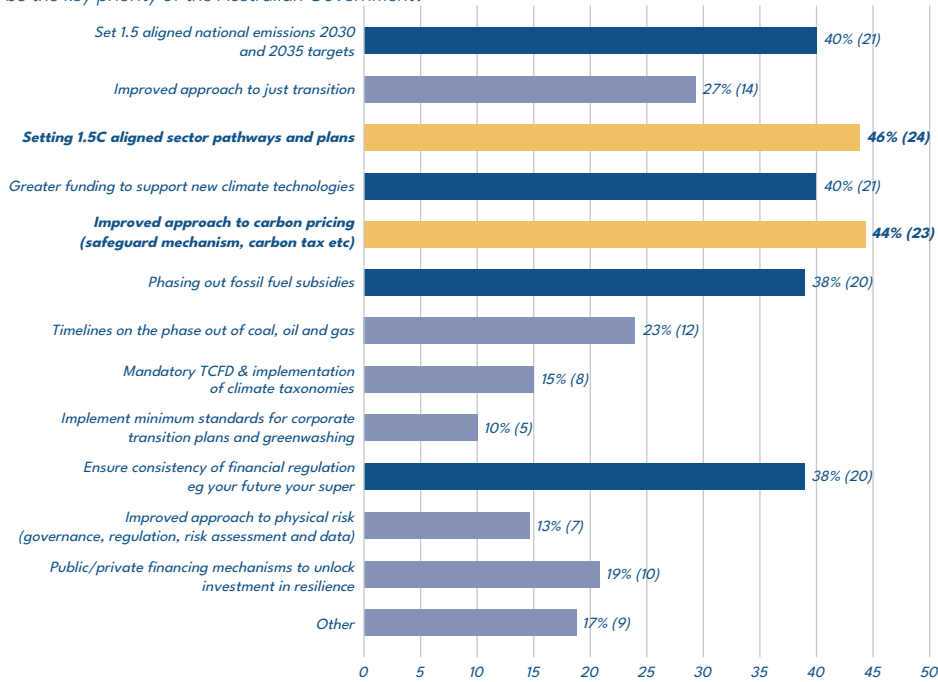
Clear and transparent carbon pricing sends market signals and incentivises behavioural change and investment flows into lower and zero emissions solutions. The more carbon is explicitly priced, the more investment will flow to net zero emissions technologies and the more efficiently industry will be able to ensure economic and overall policy objectives are met. An immediate priority in Australia is to ensure the country's existing carbon pricing mechanism – the Safeguard Mechanism – is aligned with avoiding climate damages from warming above 1.5°C. IGCC's submission on the proposed Safeguard Mechanism Reforms is available [here](#).

3. 40% – Setting 1.5°C aligned national emissions 2030 and 2035 targets:

The greatest net benefit to the economy can be achieved by early policy interventions to align national economic strategies to the objective of the Paris Agreement to limit average global warming to 1.5°C.³⁹ National targets provide investment signals to capital markets and should guide all national decision-making. For example, the future decision on Australia's 2035 target is very important to investors. A Paris Agreement-aligned 2035 target will give investors longer term visibility of national policy goals and promote early investment to achieve greater emissions reductions over the coming decade.

³⁹ See, for example, Network for Greening the Financial System (2020), *NGFS climate scenarios for central banks and supervisors*, https://www.ngfs.net/sites/default/files/medias/documents/820184_ngfs_scenarios_final_version_v6.pdf; T. Kompas et al. (2019), *Australia's clean energy future: Costs and benefits* [Issues Paper No. 12], MSSI, The University of Melbourne, https://sustainable.unimelb.edu.au/_data/assets/pdf_file/0012/3087786/Australias_Clean_Economy_MSSI_Issues_Paper12.pdf; Deloitte Access Economics (2020), *A new choice: Australia's climate for growth*, <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-dae-new-choice-climate-growth-051120.pdf?nc=1>.

Chart 36: What should be the key priority of the Australian Government?



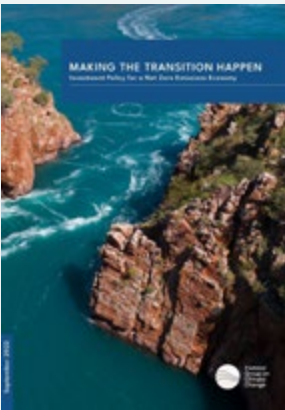
What do you think should be the key priority of the federal government? (Select the top three answers)

The priorities above are reflected in IGCCs’ recent three-year priorities for the Australian Government (see information box 17).

Credible, investable and durable policy frameworks put in place today will not only support strong investor and beneficiary returns into the future but also enhance Australia’s economic competitiveness and help attract international capital.

Information Box 17

IGCC’s Policy Priorities for the Current Australian Parliament



In 2022, IGCC, whose members have more than \$3 trillion in Australian funds under management, announced high-priority policies that can unlock capital for Australia’s transition to net zero.

Over the next three years, investors’ priorities for additional policy include the following:

- Aligning national emissions targets to 1.5°C, which implies a 2035 target of approximately 75% emissions reduction
- Establishing sector-by-sector goals to 2050, based on advice from the Climate Change Authority, to guide policy and investment
- Ensuring that the country’s current carbon pricing tool, the Safeguard Mechanism, is aligned with 1.5°C
- Establishing a National Transition Authority to support a just and orderly transition to net zero
- Unlocking private sector investment in adaptation and climate risk in all relevant planning, land use rules and direct investment policies.

The policy priorities are based on extensive input from mainstream Australia’s institutional investment industry, including IGCC’s membership and industry peak bodies.

7. Conclusion

Climate change is a systematic threat and opportunity—institutional investors are and will continue to be co-owners of companies and assets throughout the Australian and global economies, meaning that climate is a risk they cannot divest from.⁴⁰

Ongoing delays in ambitious climate action will lead to a disorderly and more costly transition to net-zero emissions.⁴¹ Accelerated, well-targeted investments in rapid, just and orderly decarbonisation and resilience will provide the highest net benefit and returns to the overall economy and institutional investors' beneficiaries.⁴²

Investors have continued to make climate progress over 2022. Some key takeaways from this Report include:

- **2050 Targets:** Effective climate governance and net-zero implementation are now the expected norms for institutional investors across Australia. Net-zero by 2050 targets now sit across most institutional investors. However, asset owner mandates do not reflect the appetite for a net-zero emissions future, with most mandates not yet specifying requirements relating to net zero or decarbonisation.
- **Interim Targets:** During 2022, there was a clear shift as investors turned their focus to a range of interim targets (including 2025 or 2030 targets for decarbonisation, asset alignment, climate solutions and company engagement) as a means to drive real economy emission reductions, and a practical and rigorous approach for investor climate action.
- **Climate Plans:** Investors are establishing plans to decarbonise portfolios, ensure appropriate governance structures, establish formal engagement strategies to ensure corporations adopt 1.5°C-aligned transition plans, and disclose objectives and progress to monitor impact transparently.
- **Carbon Measurement:** Carbon emission measurement continues to be an important area of focus and will continue as investors track portfolio alignment against their emission reduction targets.

- **Corporate Engagement:** There has been progress in corporate climate engagement, with a greater formalisation of investor-specific engagement strategies, voting and escalation policies and targets, as investors increasingly see corporate engagement (particularly collaborative engagement) as a key mechanism to manage exposure to climate risks and enhance the future value of assets, including by requiring credible transition plans.
- **Climate Solutions Investments:** Investors have identified barriers to investing in climate solutions investments, and while definitions of 'climate solutions' differ between organisations and investors, investors are making investments and setting targets in climate solutions to capture a share of the opportunities and contribute to the reduction of system-wide climate risks. Climate networks and industry bodies will continue to work to provide definitions to enhance standardisation.
- **Physical Risk and Adaptation:** Physical risk assessment and investment lag well behind investor responses to climate mitigation. Investors recognise that managing the impact of physical climate risks (including distribution to operations, supply or value chains, or indirectly through shocks to broader economic, human or natural systems) is crucial to the resilience of portfolios. Investors are exploring ways invest more in resilience and drive adaptation actions across assets.
- **Other Climate-related Areas:** investors increasingly see the management of just transition and biodiversity risks as areas of importance; however, investor assessment and responses to biodiversity appear low, indicating that capital markets are likely under-pricing the implications of biodiversity loss.

IGCC will continue to support investors to overcome barriers to climate-aligned investment, including through policy advocacy with the Australian Government. IGCC will also continue to support the growing appetite among institutional investors with tools, frameworks and resources to assist implementation and acceleration of the transition to net zero through climate-aligned investments.

40 I. Monasterolo, 'Climate Change and the Financial System', *Annual Review of Resource Economics*, vol. 12 (2020), pp. 299–320.

41 S. Kreibiehl et al., 'Chapter 15: Investment and Finance' [Draft], IPCC, 2022.

42 Network for Greening the Financial System, 'NGFS Climate Scenarios for Central Banks and Supervisors', 2020.

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