



**Climateworks**  
CENTRE

---

# Integrating 1.5 degrees Celsius alignment in Your Future Your Super

PRELIMINARY  
ANALYSIS

JULY 2024



---

### **ACKNOWLEDGEMENT OF COUNTRY**

We acknowledge and pay respect to the Traditional Custodians and Elders – past and present – of the lands and waters of the Wurundjeri people of the Kulin Nation on which the Climateworks Centre head office is located, and acknowledge that sovereignty has never been ceded.

We extend our respect to all Traditional Custodians and Elders of the lands and waters where Climateworks operates. [More information.](#)

## DISCLAIMER

This information has been compiled from selected public sources. Climateworks Centre, in providing this document, believes the sources of information to be reliable; however, we do not guarantee the accuracy, completeness, or timeliness of the information provided, which is subject to change without notice. Nothing in this document shall be construed as a guarantee of any kind. Climateworks disclaims any liability for errors or omissions, and this document shall not be construed as investment advice or recommendations. Recipients should independently assess the contents and make their own judgments.

The information herein is intended for sophisticated investors and individuals familiar with investment terminology. Persons who do not fall within the definition of sophisticated investors should refrain from acting on the information provided.

This document is for general informational purposes only and does not constitute, nor should it be relied upon as legal, financial, or tax advice. Potential investors should seek independent advice before making any investment decisions. Past performance is not indicative of future outcomes.

The contents of this document must not be reproduced or redistributed without proper attribution to Climateworks Centre.

This document is not intended for retail investors and should not be distributed to such individuals in any jurisdiction.

## ABOUT US

Climateworks Centre bridges the gap between research and climate action. We are climate transition specialists, working in Australia, Southeast Asia and the Pacific with decision-makers who have the power to reduce emissions at scale. Climateworks develops evidence-based solutions to accelerate emissions reduction in line with the global 1.5°C temperature goal and shared climate safety.

Co-founded by philanthropy and Monash University, Climateworks is an independent not-for-profit working within the Monash Sustainable Development Institute.

---

# Contents

<b>Table of graphics and figures</b>	<b>5</b>
<b>Overview</b>	<b>6</b>
The connection between performance and climate risk	6
<b>Introduction</b>	<b>8</b>
<b>Global climate indices landscape</b>	<b>9</b>
EU's climate benchmarks regulation	9
Climate indices market analysis	11
Scope	11
Research methodology	11
Findings	12
Asset class-specific discussion	14
Boutique indices and future research iterations	30
<b>Performance overview and risk considerations</b>	<b>31</b>
Financial performance	31
Tracking error	32
Climate performance	33
Risk considerations	33
<b>Practical implementation of optional 1.5°C-aligned indices within Performance Test</b>	<b>35</b>
<b>Next steps</b>	<b>36</b>
<b>References</b>	<b>37</b>

---

# Table of Figures

<b>Table 01:</b> Exclusionary screening details as per EU delegated acts for climate benchmarks	10
<b>Table 02:</b> Availability of climate indices across different asset classes under the performance test	12
<b>Table 03:</b> Australian Equities Summary	16
<b>Table 04:</b> International equities summary	18
<b>Table 05:</b> Emerging markets equities indices	20
<b>Table 06:</b> International credit indices	22
<b>Table 07:</b> International listed property indices	24
<b>Table 08:</b> International listed infrastructure summary	27
<b>Table 09:</b> Examples of unlisted property funds in the Australian market	28
<b>Table 10:</b> Summary of boutique indices to be researched further	30
<b>Figure 1:</b> High-level performance comparison – Australian Equities (as at 30 April 2024)	31
<b>Figure 2:</b> High-level performance comparison – International Equities (as at 30 April 2024)	32
<b>Table 11:</b> Tracking error comparison	32
<b>Table 12:</b> Comparison of WACI performance for Australian equities and international equities indices	33
<b>Table 13:</b> Standard Risk Measure categories	34

# Overview

The Australian Government's 'Your Future Your Super' legislation aims to safeguard Australians' retirement savings against high fee, low performing management of their superannuation options.

Within this legislation, the Australian Prudential Regulation Authority's (APRA) performance test has called out MySuper and trustee-directed product superannuation options that underperform, emphasising the duty superannuation fund trustees have to act in the best financial interests of their members.

The Federal Government recently released its Sustainable Finance Roadmap, which will help investors, companies and the broader community make the most of the global net zero transformation (The Hon Dr Jim Chalmers MP 2024). It is imperative that our superannuation sector aligns with and supports this roadmap.

As global temperatures rise, the risks posed by climate change – including extreme weather events affecting the economy and communities – will continue to materialise. It is therefore imperative that capital is allocated towards decarbonisation efforts and that investments account for potential opportunities associated with the climate transition as well as the associated risks of climate change.

Superannuation, as of March 2024, collectively represented approximately AU\$3.9 trillion of assets under management (The Association of Superannuation Funds of Australia [ASFA] 2024). The allocation of this pool of capital will be key to helping Australia and the rest of the world pursue a 1.5-degree Celsius aligned pathway. Climateworks Centre therefore proposes an addition to the current performance test benchmarks, in the form of an option for superannuation funds to use and be assessed against forward looking 1.5 degree-aligned indices.

Climate change may lead to reduced investment returns due to the erosion of revenues for businesses and higher costs due to climate transition and physical risks (Huang and Koch 2024). The introduction and flexibility of utilising a 1.5°C-aligned indices can positively impact Australia's transition towards net zero, potentially also presenting a performance upside whilst minimising risks of diminishing long-term performance.

## Integrating 1.5°C alignment in Your Future Your Super

For this report, Climateworks conducted desktop research into global climate indices to provide the Treasury with some practical insights on building frameworks to embed climate considerations within the performance test. Firstly, we examined the European Union's climate benchmarks regulation where baseline requirements on what constitutes 'Paris-aligned Benchmarks' and 'Climate Transition Benchmarks' have been defined by the EU Commission (Commission Delegated Regulation (EU) 2020/1816 2020). We found that these baseline requirements largely revolve around incorporating carbon reduction targets, decarbonisation rates, and exclusion criteria for certain industries that are deemed harmful.

We then examined major index providers, such as S&P, MSCI and FTSE Russell, to understand climate indices available across asset classes under the performance test. Through this process, we aimed to identify how climate considerations are currently embedded into index construction methodologies. We found that climate index offerings are generally based on a reference index such as the ASX 300, the MSCI World Index, or the S&P 500. Across the index methodologies assessed, we found that index providers use a combination of forward-looking and backward-looking metrics to arrive at their final climate index.

Climate indices differ from traditional indices as they re-rank the reference universe, which is traditionally based on market capitalisation, into an index ranking based on climate targets and

decarbonisation trajectories. From a historical performance perspective, we also found the sample of climate indices assessed outperformed conventional indices over selected time periods, exclusive of representative administration fee and expenses. Acknowledging past performance is not an indication of future performance, these historical performance outcomes highlight the potential positives of including a climate lens when investing.

Practical implementation will be critical in integrating 1.5°C into the Your Future Your Super legislation. One way that climate indices can be integrated into superannuation investment processes is through strategic asset allocation to these indices.

---

# Introduction

This report aims to provide insights into the current Your Future Your Super regulation and how climate considerations can be embedded into the performance test regime.

The current performance test has been successful in holding superannuation trustees to account, upholding members' rights to have funds act in their best financial interest. However, in its existing form, the performance test has inadvertently incentivised benchmark-hugging practices, against relatively high-carbon-emitting indices. This is due to the test's tracking error constraints as indicated within Treasury's *Annual Superannuation Performance Test - design options: Consultation paper* (The Treasury 2024). Climate change has the potential to negatively impact performance returns (Huang and Koch 2024) and this runs counter to the performance test's duty in upholding Australians' best financial interests. Therefore, investment processes need to be able to capture risks and opportunities brought about by the climate transition.

Climateworks proposes introducing a set of optional, alternative indices to incorporate climate considerations into the performance test regime. These alternative climate indices would sit alongside the current performance test as an optional benchmark for superannuation funds to adopt. An aim being added flexibility for superannuation funds to allocate capital into more climate-aligned investments without diluting the purpose of the performance test. For asset classes where a clear benchmark is not appropriate, we propose considering a carve out with their own framework and performance criteria. We also propose the development of further climate-aligned indices where possible, for some asset classes.

It is important that there are clear parameters around these alternative climate indices, and this report aims to provide insights into the current global climate indices landscape to show what these parameters might look like. This report has been divided into the following sections:

1. Global climate indices landscape – This section will include a summary on the EU climate benchmark regulations and a market study of climate indices currently available across different asset classes.
2. Performance overview and risk considerations – This section will discuss the performance comparison between climate indices and conventional indices currently nominated within the performance test.
3. Practical implementation of optional 1.5°C within the performance test

# Global climate indices landscape

Our hypothesis is: 'of the 1.5°C-aligned climate indices currently available, some may already be suitable for consideration within the performance test'. This hypothesis framed our process in developing the methodology for this study.

To begin, we explored existing research on climate indices, both within Australia and internationally. During this process, we identified United Nations Environmental Program Finance Initiative (UNEPFI) research on EU climate benchmark regulations assessing the advantages and disadvantages of introducing this regulation (UNEPFI 2022). We assumed the legislated baseline requirements of the indices can be practically implemented by index providers, asset owners, and the broader investment community. This led us to look into this regulation further to identify whether the legislated criteria for climate indices would be fit for the Australian context. We found that some of the baseline requirements under the EU's climate benchmarks regulations, for example the negative screening components are already being used widely by Australian superannuation funds and investment managers. However, the uptake of some features such as emissions reduction will be dependent upon mandatory climate disclosure regulation taking place in Australia.

## EU's climate benchmarks regulation

In 2019, the European Parliament and the Council of the European Union released Regulation 2019/2089, amending Regulation 2016/1011 with regard to the EU Climate Transition Benchmarks, EU Paris-Aligned Benchmarks and sustainability-related disclosures for benchmarks within the Official Journal L317/17. As part of this amendment, the EU Commission has been empowered to adopt delegated acts to supplement the regulation. These acts define the parameters of Climate Transition Benchmarks and Paris-aligned Benchmarks, along with a set of baseline prerequisites for products to align themselves with regulation.

The EU regulation separates climate benchmarks into two categories: Climate Transition and Paris-aligned. The EU Technical Expert Group on Sustainable Finance defines:

1. Climate Transition Benchmarks as indices, 'where underlying assets are selected, weighted or excluded in such a manner that the resulting benchmark portfolio is on a decarbonisation trajectory and is also constructed in accordance with the minimum standards laid down in the delegated acts' (EU Technical Experts Group on Sustainable Finance 2019).
2. Paris-aligned Benchmarks as indices, 'where the underlying assets are selected in such a manner that the resulting benchmark portfolio's GHG emissions are aligned with the long-term global warming target of the Paris Climate Agreement and is also constructed in accordance with the minimum standards laid down in the delegated acts' (EU Technical Experts Group on Sustainable Finance 2024).

Both categories require indices to be on a trajectory of a minimum 7 per cent emissions reductions annually. However, Paris-aligned Benchmarks have more stringent requirements compared to Climate Transition Benchmarks. The difference between the two categories lies in the carbon emissions intensity target. The emissions intensity of a Paris-aligned Benchmark must be at least 50 per cent lower than the parent universe, whereas Climate Transition Benchmarks have a emissions reduction target of 30 per cent lower than the parent universe. The negative screening component for both categories starts with exclusions on tobacco production, any involvement in controversial weapons, and companies that index providers deem to be in violation of United Nations Global Compact (UNGC) principles, or the Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises (Commission Delegated Regulation (EU) 2020/1818 2020). Paris-aligned Benchmarks include an additional layer of screens that must be incorporated.

A summary of all the exclusionary screens under the EU Delegated Acts on Minimum Standards for Climate Transition and Paris-aligned Benchmarks are summarised below:

**TABLE 01: EXCLUSIONARY SCREENING CRITERIA AS PER EU DELEGATED ACTS FOR CLIMATE BENCHMARKS**

EXCLUSIONARY SCREENING DETAILS		
EXCLUSIONS	PARIS-ALIGNED	CLIMATE TRANSITION
Companies involved in controversial weapons	✗	✗
Companies involved in the cultivation and production of tobacco	✗	✗
Companies in violation of the UNGC or the OECD Guidelines for Multinational Enterprises	✗	✗
Exploration, mining, extraction, distribution or refining of hard coal and lignite	>1% revenue	-
Exploration, extraction, distribution, or refining of oil fuels	>10% revenue	-
Exploration, extraction, manufacturing, or distribution of gaseous fuels	>50% revenue	-
Electricity generation with a GHG intensity of more than 100 g CO2 e/kWh	>50% revenue	-

Source: [EUR-Lex](#)

✗ = screened out

The EU regulation has been widely implemented by a number of index providers, including FTSE Russell, MSCI, and S&P. These index providers have suites of products, across multiple asset classes, that are aligned with the expectations of the regulations. Their climate index offerings are already in the market adoption phase, in both European and US markets. For example, FTSE Russell’s Transition Pathway Initiative Paris-aligned and Climate Transition indices, developed alongside the Transition Pathway Initiative, are currently used by the New York State Common Retirement Fund, the Church of England Pensions Board, and the Brunel Pensions Partnership (FTSE Russell 2023).

## Climate indices market analysis

The scope of this initial analysis focuses on index providers that have a significant presence within the Australian market.<sup>1</sup> Boutique indices may offer innovative climate features, however, their adoption by a broader suite of superannuation funds may be hampered by the market's unfamiliarity with the provider. Therefore, looking at index providers that are already widely used in Australia will enable superannuation funds to visualise how an optional climate index could sit within their asset allocation process.<sup>2</sup> Indices offered by other providers will be covered in subsequent reports. The indices assessed in this report come from the following index providers:

1. S&P
2. FTSE Russell
3. MSCI

Each of these indices have several product lines – each with different climate methodologies – across a variety of asset classes. In this report, we summarised the climate features used by index providers to visualise climate solutions already available in the market and those that could be amended to fit the Australian superannuation context.

## Methodology

This report focuses on both index methodologies and financial performance.

Our end goal is to integrate optional 1.5°C-aligned indices as seamlessly as possible into the superannuation sector, both from policy and implementation standpoints.

Index providers build their 1.5°C-aligned benchmarks by using traditional market capitalisation-based indices, such as the ASX 300 and the S&P 500 as a starting point. From there, each index provider chooses to add their own climate overlays into each index methodology. Climateworks' analysis aims to uncover the climate features used by these major index providers to inform Treasury on potential frameworks that can be used to advance the superannuation sector towards decarbonisation.

1.5°C-aligned indices usually re-rank the constituents of a traditional index, utilising climate overlays as the defining methodology in the index construction process. This approach results in a relatively higher ranking of companies and assets that incorporate climate considerations. We intend for the optional use of a 1.5°C-aligned benchmark to reallocate capital investment into companies and assets that prioritise climate transition. Vitally, members' interests are paramount in the current performance test regime – an optional 1.5°C-aligned benchmark aims to uphold those financial interests while future-proofing Australia's capital markets.

The inclusion of 1.5°C indices within a fund's asset allocation does not necessarily equate to exclusion and subsequent divestment, which may have performance and transaction cost implications. It will be important that any framework enables the climate transition whilst minimising transaction costs and divestment risk. In future work, we aim to provide implementation analysis to guide how this could be achieved, and we will collaborate with superannuation funds' investment teams to provide practical examples and case studies.

---

<sup>1</sup> There are other climate indices from well-known index providers such as the [Bloomberg Paris-Aligned Indices](#) that will be included in future iterations of this work.

<sup>2</sup> In subsequent phases of this work, Climateworks intends to explore climate features offered by boutique indices – many of which are yet to enter the Australian market. This will further inform a 1.5°C-aligned index framework, so that the performance test will be better able to develop a leading practice approach.

## Findings

Climateworks initial analysis identified that across asset classes covered by the performance test, there are climate indices available that may serve as alternative climate benchmarks to the existing nominated benchmarks, or at least a starting point. The following table summarises the availability of climate indices across the different asset classes:

**TABLE 02: AVAILABILITY OF CLIMATE INDICES ACROSS DIFFERENT ASSET CLASSES UNDER THE PERFORMANCE TEST (AS AT MAY 2024)**

ASSET CLASS	AVAILABLE CLIMATE INDICES
Australian equities (incl. hedged and unhedged)	Yes
International equities – developed markets (incl. hedged and unhedged)	Yes
International equities – emerging Markets (incl. Hedged and Unhedged)	Yes
Australian listed property	No
International listed property	Yes
Australian listed infrastructure	No
International listed infrastructure	Yes
Australian unlisted property	No
International unlisted property	No
Australian unlisted infrastructure	No
International unlisted infrastructure	No
Australian fixed income (including credit)	No
International fixed income (including credit)	Yes
Alternatives	Yes*

*\*based on current performance test composite consisting 25% International Equity (hedged), 25% International Equity (unhedged), 50% International Fixed Interest*

Climateworks estimates that the performance test contributes to the lack of supply of climate-aligned indices within the Australian market. As evidenced through a dearth of climate indices within the Australian listed property, listed infrastructure and fixed income asset classes. The contrasting availability of climate indices within international markets suggest that index providers have the capacity and appetite to build climate offerings in these asset classes. However, tracking error constraints under the existing performance test may prohibit investors from allocating capital outside of conventional indices that currently serve as the nominated benchmarks. As a result, introducing climate indices from international markets into Australia might not appear as commercially viable for index providers due to the market's capacity to uptake climate indices.

Our analysis also reveals a gap within the unlisted space for both property and infrastructure. There are no climate indices available from the three index providers sampled in this report. Therefore, we intend to explore the availability of climate indices within the unlisted infrastructure and unlisted property asset classes by focusing on boutique index providers in the next iteration of this work.

Further details regarding the respective asset classes will be covered in the upcoming sections.

### SUMMARY OF CLIMATE INDEX FEATURES

Our analysis discovered a myriad of sophisticated climate features already available in the market. We attribute this, in part, to the ever-evolving nature of climate data analytics. We also found the

majority of climate indices are built using the EU climate benchmarks as a foundation before additional climate overlays are added by the index providers.

Climateworks found that despite different proprietary methodologies used to embed climate considerations into each index construction, there are similar themes. Furthermore, we found climate features that are replicated across asset classes.

This report identifies five categories of climate features commonly used by the index providers. These include:

1. Forward-looking characteristics
2. EU climate benchmarks regulation alignment
3. Emissions coverage
4. Exclusionary screening
5. Revenue classifications.

Among these categories, most can be characterised as backward-looking. For the purposes of this research we consider backward-looking characteristics as using historical data, such as scope 1 and 2 emissions or revenue, in order to determine a company's performance against 1.5°C metrics. Providing a 'point-in-time' view in relation to climate. Climateworks considers forward-looking as those climate features which look at future targets to understand the potential of an underlying investment to achieve 1.5°C-alignment.

The forward-looking characteristics category contains a number of climate features as outlined in Table 3. These include the use of a company's decarbonisation targets, which might be assessed against the Science Based Targets initiative (SBTi), in order to adjust constituent weights. In such instances, a company is usually assigned a score based on whether they have an SBTi target. Carbon budgets are also a feature commonly used by index providers in determining constituent weights. In this context, carbon budgets refer to the volume of emissions that an underlying investee company has allocated over an upcoming period. This is usually based on the Paris-aligned nationally determined contribution of the country in which that company operates. Index providers also utilise assessments of a company's climate risks and opportunities to assign constituent weights to companies within their indices.

Forward-looking features offer a useful indicator of whether an investee company is on a credible decarbonisation pathway. However, it is critical to also recognise that the data points required to obtain these metrics might not be uniformly available across all markets and asset classes. It is inherently easier to extract this information from a listed equities index due to the high volume of publicly available information. Conversely, it will be more difficult to extract this type of information when assessing other asset classes, such as alternative assets. However, given that there is typically around a 50 per cent asset allocation to equities (22 per cent Australian equities and 27 per cent international equities as at December 2023) (ASFA 2024), this report mostly focuses on equities due to the significant asset allocation.

Backward-looking metrics are predominantly structured around the expectations of the EU climate benchmark regulations. The EU expects three main baselines for indices that want to be considered as climate benchmarks. This includes:

1. Carbon reduction targets
2. Emissions reduction (decarbonisation) rate of 7% p.a., at minimum
3. Exclusions

Carbon reduction targets and exclusions vary depending on whether an index is labelled Paris-aligned or Climate Transition. Historical data is needed to calculate carbon reduction targets and decarbonisation rates. For this reason, we have also delineated the usage of scope 1, 2 and 3 data into a separate category: emissions coverage. The exclusions component of the EU climate

benchmarks relies on revenue thresholds. In this case, index providers analyse the revenue generated by each index constituent and attribute those revenues into business activities. Details regarding the exclusions criteria are outlined in the EU climate benchmarks regulation section above. We recognise that some of these metrics may not be directly applicable for the Australian context, so have therefore considered some ways to localise these metrics, by incorporating Australian policy and industry developments. We intend to provide more details on this in future analysis.

A common climate overlay that index providers add into their methodologies (beyond baseline requirements from the EU's climate benchmarks regulation and forward-looking characteristics) is revenue assessment. This refers to the classification of revenues into several 'green' categories, based on the proprietary definition of each index provider. Just like revenue analysis conducted for exclusions, index providers consider the revenue generated by each index constituent over a period of time and attribute those revenues to a 'green activity' category depending on each index provider's definition. This will be an important consideration for Australia, given the soon to be delivered Australian Sustainable Finance Institute (ASFI) sustainable finance taxonomy.

Asset class nuances for the different climate index methodologies are covered further in the relevant sections below.

## Asset class-specific discussion

### AUSTRALIAN EQUITIES

Australian equities are a major component within the asset allocation of superannuation funds. Based on APRA data, the asset allocation within MySuper funds for Australian equities was 22 per cent as at December 2023 (ASFA 2024). We have identified six Australian equities climate indices based on our survey of offerings from the index providers included in this analysis. Most indices are drawn from the ASX 300. Of the three major index providers we sampled, both FTSE Russell and S&P currently have an ASX 300 offering. While FTSE Russell also has ASX 100 and ASX 200 offerings, the ASX 300-based indices are more in line with current Your Future Your Super requirements.

We found that index providers overlay some forward-looking characteristics into their Australian equities climate index methodologies. Similar to their international equities methodologies, FTSE Russell utilises carbon budgets and scenario modelling in order to adjust the weights of their index constituents. Furthermore, they also assess climate risks and opportunities for each constituent as part of their proprietary 'Management Quality' scoring system, developed by the Transition Pathway Initiative. S&P uses carbon budgets in order to measure 1.5°C-alignment of their index constituents, while also using the SBTi to assess a company's decarbonisation targets.

From the standpoint of alignment with EU climate benchmarks regulation, all indices except the S&P/ASX 300 Carbon Efficient Index follow the baseline requirements of the EU regulation. This means that the index providers require scope 1 and 2 reporting, at a minimum, in order to include a constituent in their climate indices. Scope 3 is also included where the data is available.

It is important to note that climate reporting protocols within Europe are more advanced compared to Australia's. However, given mandatory climate disclosures regulation in Australia is proposed to commence on 1 January 2025 (The Treasury 2024), we can reasonably expect to soon see improvements within the Australian market, increasing data availability and coverage for index construction.

In parallel to this project, Climateworks is working on ways to increase the quality of forward-looking data reported by ASX 300 companies through our work on 'credible transition plans'. We expect this work will further support investors, offering more transparent and credible forward-looking data supported by the upcoming climate related financial disclosures.

The EU regulation has taken a staggered approach in mandating scope 1 and 2 data for prospective index constituents depending on the industry in which they operate. The most carbon intensive industries, such as energy and mining, are mandated first with other industries set to follow.

In terms of exclusions, all indices except the S&P/ASX 300 Carbon Efficient Index use exclusionary screening to construct their indices. In contrast, this index series uses a 'carbon to revenue footprint ratio', in order to adjust weights of constituents based on the industry group they are in. In terms of revenue classifications, FTSE Russell uses 'green revenues', based on their own proprietary definition, to adjust the weights of index constituents. The greater the revenue a company has classified into FTSE Russell's 'green revenue' definition, the higher the weight they are assigned into in the index.

TABLE 03: AUSTRALIAN EQUITIES SUMMARY

SUMMARY OF AUSTRALIAN EQUITIES CLIMATE INDICES		REFERENCE INDICES					
		S&P/ASX 300	S&P/ASX 300	S&P/ASX 300	FTSE Australia 100 Index	FTSE Australia 200 Index	FTSE Australia 300 Index
		CLIMATE INDICES					
CATEGORIES	FEATURES	S&P/ASX 300 Net Zero 2050 Paris-Aligned Index	S&P/ASX 300 Net Zero 2050 Climate Transition Index	S&P Carbon Efficient (Reference by Future Group in Submission)	FTSE Australia 100 TPI Climate Transition Index	FTSE Australia 200 TPI Climate Transition Index	FTSE Australia 300 TPI Climate Transition Index
<u>Forward-Looking Characteristics</u>	Adjusts constituent weights according to their decarbonisation targets (e.g.SBTi)	✓	✓				
	Adjusts the weight of constituents using carbon budgets as an indicator of 1.5C alignment	✓	✓		✓	✓	✓
	Uses scenario modelling in determining constituent weights				✓	✓	✓
	Adjusts constituent weight using assessment of constituents' climate risks and opportunities				✓	✓	✓
<u>Alignment with EU Climate Benchmarks Regulation</u>	Possesses a Decarbonisation Rate of >=7% (based on WACI)	✓	✓		✓	✓	✓
	Possesses carbon reduction targets >=50% annually	✓					
	Possesses carbon reduction targets >=30% annually		✓		✓	✓	✓
<u>Emissions Coverage (included in scoring methodology)</u>	Requires Scope 1 and 2 data to perform index construction (incl. exclusions)	✓	✓	✓	✓	✓	✓
	In addition to Scope 1 and 2, Scope 3 (if available) data is required to perform index construction	✓	✓		✓	✓	✓
<u>Exclusionary Screening</u>	Uses sector-based exclusions to form index universe (e.g. thermal coal mining, oil and gas exploration, tobacco production, controversial weapons production)	✓	✓		✓	✓	✓
	Uses ESG controversies indicators to exclude constituents from the index (e.g. UNGC violations)	✓	✓		✓	✓	✓
<u>Revenue Classifications</u>	Calculates "green revenues" using a proprietary definition and methodology to optimise weights within the index				✓	✓	✓

Source: FTSE Russell (2024), S&P (2024)

## INTERNATIONAL EQUITIES – DEVELOPED MARKETS

Just like Australian equities, international equities are also a significant component of the strategic asset allocation for superannuation funds. International listed shares were 27 per cent of the overall asset allocation in December 2023 (ASFA 2024). Within the international equities landscape, we sampled eight products across the three index providers. Across these eight products, all utilise forward-looking characteristics to construct their indices.

As outlined in Table 4, FTSE Russell's 'FTSE Developed ex Australia TPI Climate Transition Index', 'FTSE Paris-Aligned Benchmark' and 'FTSE Climate Transition Benchmark' indices appear to incorporate the highest number of forward-looking characteristics. Their scenario modelling is based on three scenarios; a 1.5°C scenario, a below 2°C scenario and a national pledges scenario. FTSE define their 1.5°C and below 2°C scenarios using the Paris Agreement target of 'limiting global temperature rises to 1.5°C above pre-industrial levels', whereas the national pledges scenario is consistent with emissions reduction levels pledged by countries up to at least the mid-2020s (Transition Pathway Initiative 2024). FTSE then scores and ranks each index constituent based on these scenarios, with those fitting a 1.5°C scenario receiving a higher score compared to index constituents in the other two categories.

The S&P 500 'Net Zero 2050 Paris-Aligned ESG Index' and S&P 500 'Net Zero Climate Transition ESG Index' look at decarbonisation targets in order to rank companies, using SBTi and/or Trucost data to rank their constituents (S&P 2024). S&P then uses this data to overweight or underweight companies with an eligible science-based target, based on methodologies used by these indices. Use of carbon budgets to optimise the weights of their index constituents is common to both FTSE Russell and S&P methodologies. FTSE Russell feeds carbon budgets into their scenario models, whereas S&P uses carbon budgets to determine an index constituent's alignment with their proprietary 1.5°C Climate Scenario Transition Pathway, assigning a higher score to those that are aligned, which affects their ranking in the index (FTSE 2024 & S&P 2024).

MSCI also uses scenario modelling within their index construction. Their scenario modelling is based around their Low-Carbon Transition Score, in which constituents are organised into five categories, depending on the sector in which they operate. For example, companies operating within the coal mining sector are placed in an 'asset stranding' category, which MSCI defines as having the potential to experience stranding of physical or natural assets due to regulatory, market or technological forces arising through the low-carbon transition (MSCI 2024).

All of the international equities indices reviewed – with the exception of the 'MSCI World ex Australia Climate Action Index' – incorporate the baseline requirements of the EU climate benchmarks regulation into their index methodologies. Of the indices sampled within international equities, all have exclusionary screens aligned with the expectations of the EU regulation. S&P goes beyond the requirements of the EU regulation within their S&P 500 'Net Zero 2050 Paris-Aligned ESG Index' and S&P '500 Net Zero 2050 Climate Transition ESG Index', by incorporating exclusions for alcoholic beverage production, gambling and animal testing. In terms of revenue classifications, FTSE Russell uses their own definition of 'green revenue' in order to adjust the weight of their index constituents. Those with a higher allocation of revenue in 'green' categories are weighted higher within their index. Similarly, the 'MSCI World Climate Paris-Aligned Index' allocates revenue based on alignment to one of their proprietary 'clean tech' themes, such as alternative energy, sustainable water and energy efficiency (MSCI 2024).

TABLE 04: INTERNATIONAL EQUITIES SUMMARY

INTERNATIONAL EQUITIES INDICES		REFERENCE INDICES							
		FTSE Developed ex Australia Index	FTSE Developed Index	FTSE Developed Index	MSCI World Index	MSCI World Index	MSCI World ex Australia	S&P500	S&P500
CATEGORIES	FEATURES	CLIMATE INDICES							
		FTSE Developed ex Australia TPI Climate Transition Index	FTSE Developed Paris Aligned Benchmark Index	FTSE Developed Climate Transition Index	MSCI World Climate Change Index	MSCI World Climate Paris-Aligned Index	MSCI World ex Australia Climate Action index	S&P500 Net Zero 2050 Paris-Aligned ESG Index	S&P500 Net Zero 2050 Climate Transition ESG Index
<u>Forward-Looking Characteristics</u>	Adjusts constituent weights according to their decarbonisation targets (e.g.SBTi)						✓	✓	✓
	Adjusts the weight of constituents using carbon budgets as an indicator of 1.5C alignment	✓	✓	✓				✓	✓
	Uses scenario modelling in determining constituent weights	✓	✓	✓	✓	✓			
	Adjusts constituent weight using assessment of constituents' climate risks and opportunities	✓	✓	✓	✓	✓	✓		
<u>Alignment with EU Climate Benchmarks Regulation</u>	Possesses a Decarbonisation Rate of >=7% (based on WACI)	✓	✓	✓	✓	✓		✓	✓
	Possesses carbon reduction targets >=50% annually		✓			✓		✓	
	Possesses carbon reduction targets >=30% annually	✓		✓	✓				✓
<u>Emissions Coverage (included in scoring methodology)</u>	Requires Scope 1 and 2 data to perform index construction (incl. exclusions, optimisations)	✓	✓	✓	✓	✓	✓	✓	✓
	In addition to Scope 1 and 2, Scope 3 (where applicable) data is required to perform index construction	✓	✓	✓	✓	✓	✓	✓	✓
<u>Exclusionary Screening</u>	Uses sector-based exclusions to form index universe (i.e. thermal coal mining, oil and gas exploration, tobacco production, controversial weapons production)	✓	✓	✓	✓	✓	✓	✓	✓
	Uses ESG controversies indicators to exclude constituents from the index (e.g. UNGC violations)	✓	✓	✓	✓	✓	✓	✓	✓
<u>Revenue Classifications</u>	Calculates "green revenues" using a proprietary definition and methodology to optimise weights within the index	✓	✓	✓		✓			

Source: MSCI (2023), MSCI (2024), FTSE Russell (2024), S&P Dow Jones Indices (2024)

## INTERNATIONAL EQUITIES – EMERGING MARKETS

Our analysis identified some emerging markets indices that have been overlaid with climate considerations. MSCI has three emerging markets offerings based around their *MSCI Paris-aligned Indexes Methodology* (MSCI 2024) and *MSCI Climate Change Indexes Methodology* (MSCI 2024) as well as their *Climate Action Indices Methodology* (MSCI 2024). These methodologies are all identical to those used within international equities, with the only difference being the reference universe. Therefore, the climate features embedded within these emerging markets indices are identical to those listed in Table 04.

MSCI uses the 'MSCI Emerging Markets Index' as their reference universe, which is similar to that of the current performance test benchmark for emerging markets equities (i.e. 'MSCI Emerging Markets Index With Special Tax', 100 per cent hedged to AUD) (APRA 2022).

We also found FTSE Russell and S&P have emerging markets offerings that have been overlaid with climate considerations. As per their developed markets indices, these indices contain forward-looking characteristics and align with the EU benchmarks regulation's baseline requirements. Climateworks found that the index methodologies underlying FTSE Russell and S&P's climate indices are largely identical to those used for their developed markets offering.

As emerging markets progress decarbonisation, further investment opportunities for investors may occur. Climateworks works across the ASEAN markets, and have noted the increased attention towards climate-related investment opportunities within these jurisdictions, which will require suitable performance comparison mechanisms. This may be through the inclusion of an optional 1.5°C-aligned emerging market index within the performance test or via the proposed carve out. The option to include emerging markets, from a climate opportunity perspective, could be further tested with superannuation funds during the planned investment team engagement phase of our work.

TABLE 05: EMERGING MARKETS EQUITIES INDICES

EMERGING MARKETS EQUITIES INDICES		REFERENCE INDICES							
		FTSE Emerging Index	FTSE Emerging Index	FTSE Emerging Index	MSCI Emerging Markets Index	MSCI Emerging Markets Index	MSCI Emerging Markets Index	S&P Emerging Plus Large MidCap Index	S&P Emerging Plus Large MidCap Index
		CLIMATE INDICES							
CATEGORIES	FEATURES	FTSE Emerging TPI Climate Transition Index	FTSE Emerging Paris-Aligned Index	FTSE Emerging Climate Transition Index	MSCI EM Climate Change Index	MSCI EM Climate Paris-Aligned Index	MSCI Emerging Markets Climate Action index	S&P Emerging Plus Large MidCap Net Zero 2050 Paris-Aligned ESG Index	S&P Emerging Plus Large MidCap Net Zero 2050 Climate Transition ESG Index
<u>Forward-Looking Characteristics</u>	Adjusts constituent weights according to their decarbonisation targets (e.g.SBTi)						✓	✓	✓
	Adjusts the weight of constituents using carbon budgets as an indicator of 1.5C alignment	✓	✓	✓				✓	✓
	Uses scenario modelling in determining constituent weights	✓	✓	✓	✓	✓			
	Adjusts constituent weight using assessment of constituents' climate risks and opportunities	✓	✓	✓	✓	✓	✓		
<u>Alignment with EU Climate Benchmarks Regulation</u>	Possesses a Decarbonisation Rate of >=7% (based on WACI)	✓	✓	✓	✓	✓		✓	✓
	Possesses carbon reduction targets >=50% annually		✓			✓		✓	
	Possesses carbon reduction targets >=30% annually	✓		✓	✓				✓
<u>Emissions Coverage (included in scoring methodology)</u>	Requires Scope 1 and 2 data to perform index construction (incl. exclusions, optimisations)	✓	✓	✓	✓	✓	✓	✓	✓
	In addition to Scope 1 and 2, Scope 3 (where applicable) data is required to perform index construction	✓	✓	✓	✓	✓	✓	✓	✓
<u>Exclusionary Screening</u>	Uses sector-based exclusions to form index universe (i.e. thermal coal mining, oil and gas exploration, tobacco production, controversial weapons production)	✓	✓	✓	✓	✓	✓	✓	✓
	Uses ESG controversies indicators to exclude constituents from the index (e.g. UNGC violations)	✓	✓	✓	✓	✓	✓	✓	✓
<u>Revenue Classifications</u>	Calculates "green revenues" using a proprietary definition and methodology to optimise weights within the index	✓	✓	✓		✓			

Source: FTSE Russell (2024), MSCI (2024), S&P Dow Jones Indices (2024)

## INTERNATIONAL FIXED INCOME

International fixed income was at 7 per cent of the MySuper asset allocation as at December 2023 (ASFA 2024). Our analysis includes five samples of international fixed income climate indices. It is likely that there are more index offerings from boutique indices or from Bloomberg, which were not included in this first phase of work.

Both MSCI and FTSE Russell use forward-looking metrics identical to those used for their equities indices. FTSE uses scenario modelling and carbon budgets to adjust the weight of each constituent within their index, whereas MSCI's 'Paris-Aligned' and 'Climate Change' indices all use their proprietary Low Carbon Transition category (MSCI 2024), as per their equities indices. MSCI's 'Climate Action Corporate Bond Index' differs from the other indices' forward-looking characteristics, as it relies on SBTi targets to adjust weights of index constituents. All five indices utilise qualitative assessment of climate risks and opportunities in order to adjust the weights of their index constituents.

Four out of five of the international fixed income indices identified are aligned with the EU's climate benchmarks regulation. MSCI's 'Climate Action Corporate Bond Index' is the only index that is not aligned with the EU regulation. Aligned indices use emissions reporting including scope 1, 2 and 3 information to calculate required yearly decarbonisation targets and carbon reduction targets. Exclusions are applied by all of the indices, and these exclusions are all aligned with requirements of the EU regulation. Revenue definitions, as determined by proprietary use of proceeds, are calculated by both MSCI, to construct their 'MSCI Climate Paris-Aligned Corporate Bond Index', and FTSE Russell, to construct their 'FTSE World Broad Investment-Grade (WorldBIG) Paris-Aligned Benchmark' and 'FTSE World Broad Investment-Grade (WorldBIG) Climate Transition Benchmark Corporate Bond' indices.

TABLE 06: INTERNATIONAL CREDIT INDICES

INTERNATIONAL FIXED INCOME INDICES		REFERENCE INDICES				
		MSCI Corporate Bond Index	MSCI Corporate Bond Index	MSCI Corporate Bond Index	FTSE WorldBIG Corporate Bond Index	FTSE WorldBIG Corporate Bond Index
		CLIMATE INDICES				
CATEGORIES	FEATURES	MSCI USD HY Climate Change Corporate Bond Index	MSCI Climate Paris-Aligned Corporate Bond Index	MSCI Climate Action Corporate Bond Indexes	FTSE WorldBIG PAB Corporate Bond Index	FTSE WorldBIG CTB Corporate Bond Index
<u>Forward-Looking Characteristics</u>	Adjusts constituent weights according to their decarbonisation targets (e.g.SBTi)			✓		
	Adjusts the weight of constituents using carbon budgets as an indicator of 1.5C alignment				✓	✓
	Uses scenario modelling in determining constituent weights	✓	✓		✓	✓
	Adjusts constituent weight using assessment of constituents' climate risks and opportunities	✓	✓	✓	✓	✓
<u>Alignment with EU Climate Benchmarks Regulation</u>	Possesses a Decarbonisation Rate of >=7% (based on WACI)	✓	✓		✓	✓
	Possesses carbon reduction targets >=50% annually		✓		✓	
	Possesses carbon reduction targets >=30% annually	✓				✓
<u>Emissions Coverage (included in scoring methodology)</u>	Requires Scope 1 and 2 data to perform index construction (incl. exclusions)	✓	✓	✓	✓	✓
	In addition to Scope 1 and 2, Scope 3 data is required to perform index construction	✓	✓	✓	✓	✓
<u>Exclusionary Screening</u>	Uses sector-based exclusions to form index universe (i.e. thermal coal mining, oil and gas exploration)	✓	✓	✓	✓	✓
	Uses ESG controversies indicators to exclude constituents from the index (e.g. UNGC violations)	✓	✓	✓	✓	✓
<u>Revenue Classifications</u>	Calculates "green revenues" using a proprietary definition and methodology to optimise weights within the index		✓		✓	✓

Source: MSCI (2023), MSCI (2024), FTSE Russell (2024)

## AUSTRALIAN FIXED INCOME

Australian fixed income was 12 per cent of the MySuper asset allocation as at December 2023 (ASFA 2024). Our analysis found no climate indices for Australian fixed income in the Australian market. However, we believe that it is possible to embed climate considerations within this asset class. Climateworks' analysis of international fixed income shows that there are a number of applicable climate features and we believe that international examples can serve as a starting framework for embedding climate considerations for Australian fixed income.

From our analysis on international fixed income, forward-looking characteristics can be embedded into index construction by performing decarbonisation scenario modelling on the use of proceeds from Australian-issued bonds, or financed emissions. We believe there could be more innovative climate data analytics that can be developed to benchmark Australian fixed income. This work would seek to ensure alignment with the Australian Sustainable Finance Taxonomy for any new indices developed.

## INTERNATIONAL LISTED PROPERTY

Listed property generally does not make up a significant portion of a superannuation fund's strategic asset allocation, sitting at 2 per cent of MySuper asset allocation as at December 2023 (ASFA 2024). Nonetheless, the built environment is still an important component of decarbonisation. Our analysis found that FTSE Russell has a range of offerings for international listed property indices that embed climate considerations. Based on the research that we have conducted FTSE Russell uses the 'FTSE EPRA Nareit Developed Index' as the reference index before climate overlays are added. This index is also used as a reference index for the 'FTSE EPRA Nareit Developed Index with Special Tax' (100 per cent hedged to AUD), which is currently used within the performance test.

Carbon emissions information is used within the index construction process for FTSE Russell's 'FTSE EPRA Nareit Green Indices Series', using two real estate data platforms: GeoPhy and Measurabl. FTSE Russell uses carbon performance of individual REITs, 'green' certification information and energy consumption data from these platforms (FTSE Russell 2024).<sup>3</sup> This data is used to weigh each REIT within their index. We also found that FTSE Russell incorporates forward-looking characteristics into the portfolio construction process of the four international listed property indices we sampled, using qualitative assessments of climate risks and opportunities for each REIT through their TPI Management Quality Scoring.

The 'FTSE EPRA Nareit Green Target Index' series, meanwhile, does not incorporate forward-looking indices. We sampled two products in this index series, the 'FTSE EPRA Nareit Developed Green Target Index' and the 'FTSE EPRA Nareit Developed Low Carbon Target Index'. Both products solely rely on backward-looking information within their index construction, such as carbon emissions data and exclusions. The 'FTSE EPRA Nareit Developed Low Carbon Target Index' has a carbon reduction target of 20 per cent, which is 10 per cent lower than the baseline requirements of the EU climate benchmarks regulation.

---

<sup>3</sup> [https://www.lseg.com/content/dam/ftse-russell/en\\_us/documents/policy-documents/guide-to-ftse-and-third-party-esg-data-used-in-ftse-russell-indices.pdf](https://www.lseg.com/content/dam/ftse-russell/en_us/documents/policy-documents/guide-to-ftse-and-third-party-esg-data-used-in-ftse-russell-indices.pdf)

TABLE 07: INTERNATIONAL LISTED PROPERTY INDICES

INTERNATIONAL LISTED PROPERTY INDICES		REFERENCE INDICES					
		FTSE EPRA Nareit Developed Index	FTSE EPRA Nareit Developed Index	FTSE EPRA Nareit Developed Index	FTSE EPRA Nareit Developed Index	FTSE EPRA Nareit Developed Index	FTSE EPRA Nareit Developed Index
		CLIMATE INDICES					
CATEGORIES	FEATURES	FTSE EPRA Nareit Developed Green EU CTB	FTSE EPRA Nareit Developed Green EU PAB	FTSE EPRA Nareit Developed Green Index	FTSE EPRA Nareit Developed Green Focus	FTSE EPRA Nareit Developed Green Target Index	FTSE EPRA Nareit Developed Green Low Carbon Target Index
<u>Forward-Looking Characteristics</u>	Adjusts constituent weights according to their decarbonisation targets (e.g.SBTi)						
	Adjusts the weight of constituents using carbon budgets as an indicator of 1.5C alignment						
	Uses scenario modelling in determining constituent weights						
	Adjusts constituent weight using assessment of constituents' climate risks and opportunities	✓	✓	✓	✓		
<u>Alignment with EU Climate Benchmarks Regulation</u>	Possesses a Decarbonisation Rate of >=7% (based on WACI)	✓	✓				
	Possesses carbon reduction targets >=50% annually		✓				
	Possesses carbon reduction targets >=30% annually	✓					
<u>Emissions Coverage (included in scoring methodology)</u>	Requires Scope 1 and 2 data to perform index construction (incl. exclusions, optimisations)	✓	✓	✓	✓	✓	✓
	In addition to Scope 1 and 2, Scope 3 (where applicable) data is required to perform index construction	✓	✓	✓	✓	✓	✓
<u>Exclusionary Screening</u>	Uses sector-based exclusions to form index universe (i.e. thermal coal mining, oil and gas exploration, tobacco production, controversial weapons production)	✓	✓	✓	✓	✓	✓
	Uses ESG controversies indicators to exclude constituents from the index (e.g. UNGC violations)	✓	✓	✓	✓	✓	✓
<u>Revenue Classifications</u>	Calculates "green revenues" using a proprietary definition and methodology to optimise weights within the index						

Source: FTSE (2024)

There is certainly more to explore within the international listed property space, and Climateworks intends to provide greater detail in future work.

This report includes an initial scan of only a few indices outside the major index providers. Climateworks identified an Asia–Pacific index – ‘APAC Green REIT ETF’ – developed by the Singapore Stock Exchange and UOB Asset Management, based in Singapore. The APAC index and its construction is based on Global Real Estate Sustainability Benchmark (GRESB) scores (GRESB 2024). GRESB is a leading ESG data provider for the real estate sector, measuring the performance of individual properties. Their scoring is widely used to benchmark the ESG credentials for the real estate sector. Climateworks intends to pursue deeper engagement with GRESB to understand how climate considerations within the property space, both listed and unlisted, can be incorporated into the performance test regime.

## AUSTRALIAN LISTED PROPERTY

From the sample of providers, we found no 1.5C aligned Australian listed property index. However, the international listed properties example – ‘APAC Green REIT ETF’ – can be considered an alternative, due to its Asia–Pacific focus. Similarly, the ‘Solactive CarbonCare Asia Pacific Green REIT Index’ also focuses on the Asia–Pacific region. Solactive relies heavily on ‘green’ building certifications to construct their index (Solactive 2024).

GRESB already has a presence within the Australian investment sector; many property fund managers relying on its proprietary assessment in evidencing their assets’ sustainability credentials. Established in 2009, GRESB is now used by more than 150 institutional investors, with more than 2000 real estate companies, REITs, funds, and developers participating in GRESB assessments (GRESB 2024). This includes major real estate and infrastructure investment companies such as Dexu, Investa and Charter Hall. The latter had 24 of their REITs assessed, of which, 17 achieved scores in the top 20 per cent of the GRESB universe (Charter Hall 2022). Dexu has three REITs that have been identified as sector leaders through GRESB assessments in 2023 (Dexu 2023). This shows that Australia is not lacking in climate-conscious listed property opportunities, adding further weight to the importance of including an appropriate climate benchmark in the performance test, for use by superannuation funds.

## INTERNATIONAL LISTED INFRASTRUCTURE

We examined four international listed infrastructure indices from S&P, MSCI, and FTSE Russell. This revealed that, in general, listed infrastructure indices largely rely on exclusionary screening to embed climate considerations.

Revenue classifications are also widely used by the index providers we surveyed. However, rather than using specific revenue-level ‘green’ classifications (like those seen within equities) index providers tend to use sub-sectors to assign ‘green’ classifications. Revenue is still analysed by some index providers such as S&P to calculate proprietary ratios, such as green-to-brown revenue, which is then used in weighting formulas for each index constituent; this analysis is largely dependent on a constituent’s sector, rather than their revenue breakdown.

MSCI uses this same sector-based approach in building their market-capitalisation-based index, ‘MSCI ACWI IMI Clean Energy Infrastructure Index’. Their index methodology only includes constituents in certain activities; one of which is ‘smart grids’ (MSCI 2024). Under this theme, only constituents from consumer staples, healthcare, consumer discretionary, industrials, information technology, and materials GICS sub-sectors, are allowed to be included.

FTSE Russell and S&P have also managed to incorporate some forward-looking characteristics in constructing their indices. Their approach for international listed infrastructure is identical to that taken for international-developed markets equities. Carbon budgets are a climate feature that both FTSE Russell and S&P use to construct their respective international listed infrastructure indices. This is likely due to the large contribution that infrastructure assets make towards the achievement of a country’s nationally determined contribution targets.

TABLE 08: INTERNATIONAL LISTED INFRASTRUCTURE SUMMARY

INTERNATIONAL LISTED INFRASTRUCTURE INDICES		REFERENCE INDICES			
		Dow Jones Brookfield Global Infrastructure	Dow Jones Brookfield Global Infrastructure	MSCI ACWI Investable Market Index	FTSE Global Core Infrastructure Alternative Electricity Index
		CLIMATE INDICES			
CATEGORIES	FEATURES	Dow Jones Brookfield Global Infrastructure Net Zero 2050 Climate Transition ESG Index	Dow Jones Brookfield Global Infrastructure Green Index	MSCI ACWI IMI Clean Energy Infrastructure Index	FTSE Global Core Infrastructure TPI Climate Transition Index
<u>Forward-Looking Characteristics</u>	Adjusts constituent weights according to their decarbonisation targets (e.g.SBTi)	✓	✓		
	Adjusts the weight of constituents using carbon budgets as an indicator of 1.5C alignment	✓			✓
	Adjusts constituent weight using assessment of constituents' climate risks and opportunities				✓
<u>Alignment with EU Climate Benchmarks Regulation</u>	Possesses a Decarbonisation Rate of >=7% (based on WACI)	✓			✓
	Possesses carbon reduction targets >=50% annually				
	Possesses carbon reduction targets >=30% annually	✓			✓
<u>Emissions Coverage (included in scoring methodology)</u>	Requires Scope 1 and 2 data to perform index construction (incl. exclusions, optimisations)	✓	✓		✓
	In addition to Scope 1 and 2, Scope 3 (where applicable) data is required to perform index construction	✓	✓		✓
<u>Exclusionary Screening</u>	Uses sector-based exclusions to form index universe (i.e. thermal coal mining, oil and gas exploration, tobacco production, controversial weapons production)	✓	✓	✓	✓
	Uses ESG controversies indicators to exclude constituents from the index (e.g. UNGC violations)	✓	✓		✓
<u>Revenue Classifications</u>	Calculates "green revenues" using a proprietary definition and methodology to optimise weights within the index	✓	✓		✓

Source: S&P Dow Jones Indices (2024), MSCI (2022), FTSE Russell (2024)

## AUSTRALIAN LISTED INFRASTRUCTURE

There are no Australia-specific infrastructure indices in the market, at the time of this report. However, as the Australian superannuation fund performance test currently uses the same benchmark to measure both Australian and international listed infrastructure, the indices identified within our international listed infrastructure analysis can be used to understand how climate considerations could be embedded within Australia's listed infrastructure space. Our analysis shows there are frameworks already available, mainly stemming from the EU climate benchmarks regulation, for a climate overlay on conventional market-capitalisation-based listed infrastructure indices.

## INTERNATIONAL AND AUSTRALIAN UNLISTED INFRASTRUCTURE

Across the three major index providers reviewed for this report, we found no climate offerings for the unlisted infrastructure asset class. However, broadening our analysis to include boutique indices, revealed the 'infraGreen Index' and 'Green Infrastructure Debt Index'. These indices were developed by Scientific Infra, an index provider born out of the EDHEC Infrastructure and Private Assets Research Institute, which focuses solely on benchmarking performance and valuing infrastructure and private assets (EDHEC Infrastructure and Private Assets Research Institute 2024).

The unlisted infrastructure space will be critical to bringing superannuation funds in line with the Australian Government's Net Zero Plan (Department of Climate Change, Energy, the Environment, and Water 2024). Climateworks intends to continue analysing this asset class, and will share further detail in future iterations of this work.

The Australian listed infrastructure asset class could be a candidate for the proposed carve out. Clear frameworks would need to be established, such as alignment with ASFI, Second Party Opinion and other consideration for assets included in a proposed carve out. As we continue this work, we will engage with partners such as the Clean Energy Finance Corporation and Net Zero Economy Authority.

## INTERNATIONAL AND AUSTRALIAN UNLISTED PROPERTY

The built environment is a major contributor to decarbonisation and is an asset that is commonly sought by superannuation funds, with asset allocation with MySuper sitting at 6 per cent as at December 2023 (ASFA 2024). At the time of analysis, we found no climate indices for unlisted property, in either Australian or international markets from the three index providers surveyed for this report.

Despite index providers not having built unlisted property indices that incorporate climate, Australian unlisted property fund managers have long incorporated sustainability metrics into the selection, retention and management of property assets. In this report, we highlight three unlisted property fund managers: Charter Hall, Investa and Centuria. We reviewed a number of their unlisted property funds to understand the sustainability metrics embedded within their portfolio selection and ongoing monitoring, see Table 09.

**TABLE 09: EXAMPLES OF UNLISTED PROPERTY FUNDS IN THE AUSTRALIAN MARKET (AS AT JUNE 2024)**

FUND MANAGER	UNLISTED PROPERTY FUND
Charter Hall	Charter Hall Direct Office Fund
Charter Hall	Charter Hall Office Trust
Charter Hall	Charter Hall Prime Office Fund
Charter Hall	Charter Hall Direct PFA Fund
Investa	Investa Commercial Property Fund
Centuria	Centuria Government Income Property Fund No. 2

Amongst the funds listed above, the most common sustainability metrics used within their investment process are NABERS Energy ratings, WELL Building Standards and Green Star ratings.

NABERS Energy ratings measure the energy consumption for either the base building, tenancy, or the whole building, with ratings assigned out of six stars (NABERS 2024).

Green Star ratings are assigned by the Green Building Council Australia; buildings are rated from four to six stars. These ratings focus on helping keep property developers on track towards achieving their decarbonisation goals, through their set of criteria (Green Building Council Australia 2024). Other metrics such as the WELL standards are also commonly used by the real estate sector as a performance-based system to measure, certify and monitor the features of the built environment from a health and wellbeing perspective (International Well Building Institute 2024). The metrics are similar to those found in the unlisted property sector.

The absence of climate-aligned unlisted property indices highlights an opportunity to develop a framework that defines baseline requirements in alignment with a 1.5°C scenario for the unlisted property sector. This framework would help superannuation funds and property developers ensure future capital flows and developments support a climate-resilient built environment for Australia.

## ALTERNATIVES

Our analysis of the alternative investments market revealed the absence of a universal approach to measuring performance of alternative assets. Investors currently place a myriad of assets – such as hedge funds, alternative credit, private equity, venture capital, and even fine art – under the umbrella of ‘alternative assets’. Given the number of assets classified in this category, some flexibility would be needed when assessing the performance of alternative assets.

The current performance test approach utilises a composite of international equities (hedged and unhedged) along with international fixed income to benchmark the performance of alternative assets. This could be further complemented by the optional climate considerations, based on climate features our analysis has identified for international developed market equities and international fixed income. Climateworks is engaging with the Alternative Investment Management Association to develop further insights into the practicalities of embedding climate considerations into alternative asset investing. We intend to share a deeper dive on this particular asset class alongside further engagement results, in the future iterations of this work.

## Boutique indices and future analysis

Based on our analysis to this point, a climate framework within the Your Future Your Super regime would enable useful flexibility for the Australian superannuation sector as well as government as they navigate evolving climate policy over the next few years. This flexibility would be beneficial in ensuring that the government and the broader superannuation sector in Australia continues to improve and advance towards decarbonisation.

To supplement and to further this work, Climateworks has begun to identify the climate features used by boutique indices in their methodologies. The Your Future Your Super regime, as well as the broader Australian superannuation sector may benefit from the innovations being pioneered by boutique indices. Table 10 below lists several boutique index providers and their climate offerings, which we aim to look at more closely. This list is not exhaustive.

**TABLE 10: SUMMARY OF BOUTIQUE INDICES TO BE RESEARCHED FURTHER**

INDEX PROVIDER	CLIMATE INDEX PRODUCT
Scientific Infra	infraGreen
Scientific Infra	Green Infrastructure Debt
Singapore Stock Exchange and UOB Asset Management, in collaboration with GRESB	APAC-focused Green REIT Index
Solactive	Solactive CarbonCare Asia Pacific Green REIT Index

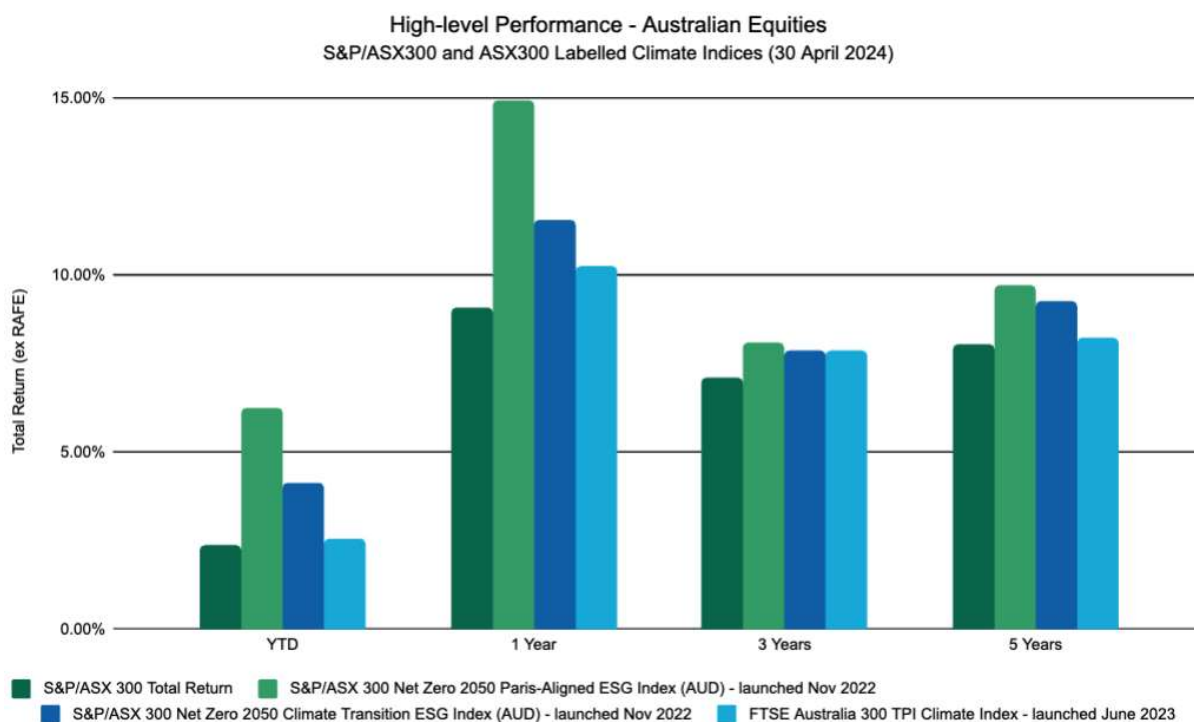
# Performance overview and risk considerations

It is important that any potential amendments to existing Your Future Your Super legislation uphold the key purposes of the performance test, to ensure members best interest. In this section, we compare the financial and climate-related performance of the sample of indices outlined within this report.

## Financial performance

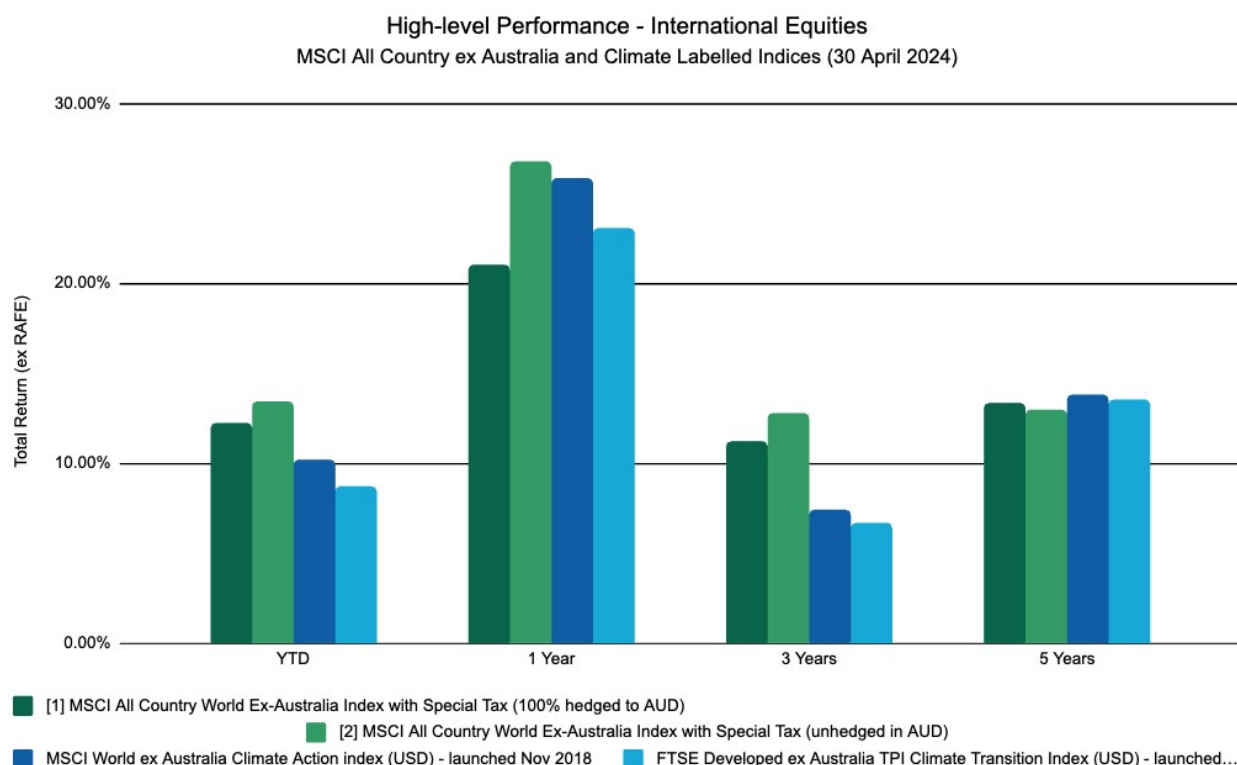
Figure 1 outlines high-level performance based on total returns (ex-representative administration fee and expenses) for select climate indices for Australian and international equities. We have compared available options from S&P, MSCI and FTSE Russell. Some indices have been established for less than five years and use back-testing to extend historical performance.

FIGURE 1: HIGH-LEVEL PERFORMANCE COMPARISON - AUSTRALIAN EQUITIES (AS AT 30 APRIL 2024)



Source: Compiled by Climateworks, derived from publicly available data

FIGURE 2: HIGH-LEVEL PERFORMANCE COMPARISON - INTERNATIONAL EQUITIES (AS AT 30 APRIL 2024)



Source: Compiled by Climateworks, derived from publicly available data

Both Figure 1 and Figure 2 illustrate that historical financial performance, particularly over the longer term, is not compromised. The current performance test may limit the flexibility of superannuation funds to actively invest outside of the nominated benchmarks, limiting the potential financial performance upside of climate-aligned investing.

### Tracking error

Based on Climateworks’ initial tracking error assessments, we found tracking errors were most pronounced when comparing sample climate indices to conventional indices over shorter term timeframes. With the minimum testing period for all indices progressively increased from five to seven years, aligning with the increase in the lookback period from eight to ten years, longer term tracking error considerations relating to climate indices may be mitigated. A summary of initial findings is captured below in Table 13.

TABLE 13: HIGH-LEVEL TRACKING ERROR\* COMPARISON (AS AT 30 APRIL 2024)

DOMESTIC EQUITIES	YTD	1 Year	3 Years Annualised	5 Years Annualised
Comparable Index - S&P/ASX 300 Net Zero 2050 Paris-Aligned ESG Index (AUD) <i>Tracking error measured against the S&amp;P/ASX 300 (ex. RAPE)</i>	2.74%	4.12%	0.69%	1.20%
Comparable Index - S&P/ASX 300 Net Zero 2050 Climate Transition ESG Index (AUD) <i>Tracking error measured against the S&amp;P/ASX 300 (ex. RAPE)</i>	1.23%	1.76%	0.54%	0.88%
Comparable Index - FTSE Australia 300 TPI Climate Index <i>Tracking error measured against the S&amp;P/ASX 300 (ex. RAPE)</i>	0.11%	0.82%	0.53%	0.16%

INTERNATIONAL EQUITIES	YTD	1 Year	3 Years Annualised	5 Years Annualised
Comparable Index - MSCI World ex Australia Climate Action index (USD) <i>Tracking error measured against the [1] (ex. RAFE)</i>	1.42%	3.44%	2.69%	0.33%
Comparable Index - MSCI World ex Australia Climate Action index (USD) <i>Tracking error measured against the [2] (ex. RAFE)</i>	2.27%	0.66%	3.75%	0.58%
Comparable Index - FTSE Developed ex Australia TPI Climate Transition Index (USD) <i>Tracking error measured against the [1] (ex. RAFE)</i>	2.48%	1.48%	3.22%	0.12%
Comparable Index - FTSE Developed ex Australia TPI Climate Transition Index (USD) <i>Tracking error measured against the [2] (ex. RAFE)</i>	3.33%	2.62%	4.28%	0.37%

Source: Compiled by Climateworks, derived from publicly available data

[1] MSCI All Country World Ex-Australia Index with Special Tax (100% hedged to AUD)

[2] MSCI All Country World Ex-Australia Index with Special Tax (unhedged in AUD)

Formula used by Climateworks to calculate tracking error:

$$s = \sqrt{\frac{\sum(x - \bar{x})^2}{(n - 1)}}$$

s is the sample standard deviation

n is the sample size

x is the observed performance of an index

$\bar{x}$  is the sample mean of a climate index and a conventional index (i.e. the S&P/ASX 300 or MSCI All Country World Ex-Australia Index with Special Tax (100% hedged to AUD) or MSCI All Country World EX-Australia Index with Special Tax (unhedged in AUD)

$\sum$  is the sum

## Climate performance

Weighted average carbon intensity (WACI) is a commonly applied emissions metric in the investment sector, providing a ‘point-in-time’ measure of carbon intensity. Based on desktop research Climateworks initial findings indicate that the Australian equities index utilised within the performance test has a WACI that is approximately 2.5 times higher than comparable climate-aligned indices. While the equivalent international equities performance test index was assessed as having a WACI that is approximately 1.7 times higher than a comparable climate-aligned index.

Climateworks currently has a number of projects underway to help decarbonise the ASX 300, however progress would need to be accelerated to achieve Australia’s stated decarbonisation targets.

TABLE 12: COMPARISON OF WACI PERFORMANCE FOR AUSTRALIAN EQUITIES AND INTERNATIONAL EQUITIES INDICES (AS AT APRIL 2024)

ASSET CLASS	INDICES	WEIGHTED AVERAGE CARBON INTENSITY* (METRIC TONS CO2E/\$1M REVENUES)
Australian Equities	Current Benchmark - S&P/ASX 300 Total Return Index	221.99
	Comparable Index - S&P/ASX 300 Net Zero 2050 Climate Transition ESG Index	90.94
	Comparable Index - S&P/ASX 300 Net Zero 2050 Paris-Aligned ESG Index	97.36
ASSET CLASS	INDICES	WEIGHTED AVERAGE CARBON INTENSITY ** (METRIC TONS CO2E/\$1M SALES)
International Equities	Current Benchmark - MSCI All Country World ex-Australia Index	729
	Comparable Index - MSCI ACWI Climate Paris Aligned	428

Source: Compiled by Climateworks, derived from publicly available data

\*Operational and first-tier supply chain greenhouse gas emissions

\*\* Weighted average scope 1, 2 and 3 carbon emissions intensity normalised by sales

## Risk considerations

Since 2011, the Australian superannuation industry has applied Standard Risk Measure (SRM) guidance, jointly developed by the Financial Service Council and the ASFA. SRM guidance was strongly recommended by key industry regulators, Australian Securities and Investments Commission and APRA.

This guidance provides a basis for comparable risk assessment across superannuation entities. The SRM applies seven risk bands from very low to very high, as shown in Table 13. For a superannuation product to be labelled ‘conservative’, the estimated number of annual negative returns over any 20-year period is less than two, which is categorised as risk band 3 on SRM. For lifecycle investment strategies in MySuper products, the level of investment risk may vary significantly across different age cohorts.

**TABLE 13: STANDARD RISK MEASURE CATEGORIES**

RISK BAND	RISK LABEL	ESTIMATED NUMBER OF NEGATIVE ANNUAL RETURNS OVER ANY 20 YEAR PERIOD
1	Very low	Less than 0.5
2	Low	0.5 to less than 1
3 (Conservative)	Low to medium	1 to less than 2
4	Medium	2 to less than 3
5	Medium to high	3 to less than 4
6	High	4 to less than 6
7	Very high	6 or Greater

Any application of SRM does need to consider the underlying variation in assumptions applied by stakeholders. The SRM also does not outline how large a negative return might be in any given period.

An aim of the aforementioned EU climate benchmarks regulation is to mitigate market risks by tilting investments towards companies better positioned for the low-carbon transition, while reducing exposure to companies facing high transition risks that could impact market valuations. A similar approach to EU climate benchmarks could be adapted to the Australian market, while remaining sector agnostic.

---

# Practical implementation of optional 1.5°C-aligned indices within the Performance Test

Climateworks proposed optional climate benchmarks are not limited to funds trading with the label 'sustainable' or 'green'. Rather, it is intended for all superannuation options regardless of their label. These optional climate indices are intended to introduce flexibility for superannuation funds in managing their members' capital in line with their own stated decarbonisation targets and protecting their assets and underlying investments from risks posed by climate change.

By including climate in the Your Future Your Super performance test, superannuation funds would have the option to adopt a 1.5°C-aligned benchmarks across the entirety of their investment portfolio or to specific asset classes. This would mean that climate considerations can be embedded into the strategic asset allocation of superfunds at a tempo and scale appropriate to the fund's investment approach.

For example, for illustrative purposes only, if a superannuation fund's strategic asset allocation for Australian equities is 25 per cent and the fund wishes to allocate 10 per cent out of this 25 per cent towards a 1.5°C-aligned Australian equities index, and 15 per cent from the current performance test benchmark (i.e. S&P/ASX 300) this asset allocation percentage would be used for the performance composite. The practical application of this example will be further tested with superannuation funds.

This optional approach will enable superannuation funds to transition towards 1.5°C-aligned indices. The allocation would grow in size as superannuation funds gain increased comfort around climate data and reporting and have greater visibility of companies' transition and decarbonisation efforts.

Climateworks believes that introducing an optional set of 1.5°C-aligned indices within the performance test will ultimately contribute to decarbonising the Australian economy, in particular with a direct impact on the rate of decarbonisation of the ASX 300.

Given that most climate indices re-rank companies within their index based on their progress in achieving decarbonisation, it is likely that the adoption of climate indices will direct capital to companies that are making greater progress in decarbonising. This may also eventually have a flow on effect to companies that do not currently prioritise decarbonisation, prompting them to shift their strategies to ensure they do not forego potential sources of capital.

From a product-labelling standpoint, superannuation funds that claim to be on a decarbonisation pathway or make commitments on their climate transition, can utilise the 1.5°C-aligned indices to evidence their credible transition plans.

---

## Next steps

Climateworks is continuing our work to support the integration of 1.5°C-aligned indices within the performance test by working with the superannuation sector, investment teams, index providers and government.

Our second iteration of this work will cover three main areas.

### 1. Indices not covered in this report

We recognise that more analysis is needed, especially within some asset classes, such as Australian fixed income and alternative assets. We further recognise that it will be important to consider boutique indices and their climate offerings and methodologies.

### 2. Practical applications

We will engage extensively with the superannuation sector, investment teams, and index providers to understand the practical applications of integrating 1.5°C-aligned indices into their investment processes. We will work with them to help identify and bridge gaps to enable a successful implementation.

### 3. Independent knowledge partner

Our aim is to support the Treasury and Industry as an independent knowledge partner in delivering a robust performance test that incorporates 1.5°C-aligned, forward-looking indices, to help future-proof superannuation investments against climate risks while capitalising on climate opportunities.

Climateworks will be conducting a series of interviews and round table events to support our research into Climate Aligned indices within YFYS. These events will be held with a large portion of the market including superannuation funds, investment managers, industry bodies, and government. Please contact [Christie Raymond](#) if you would like to be part of this process. Please contact [Ryan Cook](#) and [Cassandra Williams](#) if you have suggested areas of research to support the uptake of climate indices within YFYS or for more information on this research.

## References

Australian Prudential Regulation Authority (2022) *Methodology Paper: MySuper Heatmap*, Australian Prudential Regulation Authority, Australian Government, accessed 22 July 2024. <https://www.apra.gov.au/sites/default/files/2022-12/Methodology%20paper%20-%20MySuper%20Heatmap.pdf>

Commission Delegated Regulation (EU) 2020/1816 (2020) L\_2020406EN.01000101.XML.

Commission Delegated Regulation (EU) 2020/1818 of 17 July 2020 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks (2020) EUR-Lex.

Core Property Research & Ratings (2021) *Unlisted Property Fund Report, Centuria Government Income Property Fund No. 2*, Core Property Research & Ratings, accessed: 03 July 2024. <https://centuria.com.au/wp-content/uploads/2021/10/CGIPF2-Core-Property-Research-Report-October-2021.pdf>

Department of Climate Change, Energy, the Environment, and Water (DCCEEW) (2024). *Net Zero*, DCCEEW, Australian Government, accessed 22 July 2024. <https://www.dcceew.gov.au/climate-change/emissions-reduction/net-zero>

Dexus (2023) *Dexus continues leadership in GRESB rankings*, Dexus, accessed 16 June 2024. <https://www.dexus.com/investor-centre/results-and-reporting/media-releases/2023/october/dexus-continues-leadership-in-gresb-rankings>

EDHEC Infra & Private Assets (2024) *EDHEC Infra & Private Assets - The Quants of Private Markets*, EDHEC Infra & Private Assets, accessed 12 June 2024. <https://scientificinfra.com/>.

EU Technical Expert Group on Sustainable Finance (2024) *Climate benchmarks and benchmarks' ESG disclosures*, EU Technical Expert Group on Sustainable Finance, European Commission, accessed 05 June 2024. [https://finance.ec.europa.eu/system/files/2019-06/finance-events-190624-presentation-climate-benchmarks\\_en.pdf](https://finance.ec.europa.eu/system/files/2019-06/finance-events-190624-presentation-climate-benchmarks_en.pdf)

FTSE Russell (2024) *FTSE EU Climate Benchmark Index Series v2.8*, FTSE Russell, accessed 30 June 2024. [https://www.lseg.com/content/dam/ftse-russell/en\\_us/documents/ground-rules/ftse-eu-climate-benchmarks-index-series-ground-rules.pdf](https://www.lseg.com/content/dam/ftse-russell/en_us/documents/ground-rules/ftse-eu-climate-benchmarks-index-series-ground-rules.pdf)

FTSE Russell (2024) *FTSE TPI Climate Transition Index Series v3.0*, FTSE Russell, accessed 30 June 2024. [https://www.lseg.com/content/dam/ftse-russell/en\\_us/documents/ground-rules/ftse-tpi-climate-transition-index-series-ground-rules.pdf](https://www.lseg.com/content/dam/ftse-russell/en_us/documents/ground-rules/ftse-tpi-climate-transition-index-series-ground-rules.pdf)

FTSE Russell (2024) *FTSE EPRA Nareit Green Index Series v3.1*, FTSE Russell, accessed 30 June 2024. [https://www.lseg.com/content/dam/ftse-russell/en\\_us/documents/ground-rules/ftse-epra-nareit-green-indices-ground-rules.pdf](https://www.lseg.com/content/dam/ftse-russell/en_us/documents/ground-rules/ftse-epra-nareit-green-indices-ground-rules.pdf)

FTSE Russell (2024) *Guide to FTSE and third party ESG data used in FTSE Indices*, FTSE Russell, accessed 17 June 2024. [https://www.lseg.com/content/dam/ftse-russell/en\\_us/documents/policy-documents/guide-to-ftse-and-third-party-sustainable-investment-data-used-in-ftse-russell-indices.pdf](https://www.lseg.com/content/dam/ftse-russell/en_us/documents/policy-documents/guide-to-ftse-and-third-party-sustainable-investment-data-used-in-ftse-russell-indices.pdf)

Green Building Council of Australia (GBCA) (2024) *Buildings – A rating tool for new buildings and major refurbishments*, accessed 12 June 2024. <https://new.gbca.org.au/green-star/rating-system/buildings/>

GRESB (2024) *GRESB - For investors*, GRESB, accessed 04 June 2024 Available at: <https://www.gresb.com/nl-en/welcome/for-investors/>

GRESB (2023) *GRESB ESG indices*, GRESB, accessed 06 June 2024. <https://www.gresb.com/nl-en/esg-indices/>

Hall C. (2022) *Charter Hall accelerates net zero and is recognised for Global Leadership in Sustainable Development, Corporate*, Charter Hall, accessed 11 June 2024. <https://www.charterhall.com.au/News/news-article/2022/10/18/charter-hall-accelerates-net-zero-and-is-recognised-for-global-leadership-in-sustainable-development>

Huang K & Koch G (2024). *How could climate change impact my expected portfolio returns?* Risklab The Big Question, accessed 22 July 2024. <https://www.allianzgi.com/-/media/allianzgi/globalagi/editorial/how-could-climate-change-impact-my-expected-portfolio-returns/allianzgi-tbq-climate-change-change-returns.pdf>

International WELL Building Institute (2024) *WELL Building Standard v1*, International WELL Building Institute, accessed 13 June 2024. <https://www.wellcertified.com/certification/v1/standard/>

Investa (2024) *Investa Commercial Property Fund (ICPF) - managed funds*, Investa, accessed 03 July 2024. <https://www.investa.com.au/managed-funds/icpf>

MSCI (2024) *MSCI Climate Change Index Methodology*, MSCI, accessed 30 June 2024. <https://www.msci.com/index/methodology/latest/ClimateChange>

MSCI (2023) *MSCI Climate Action Indexes Methodology*, MSCI, accessed 30 June 2024. <https://www.msci.com/documents/10199/e4ff2f4f-a341-8fc8-a590-69bc265ebbeb>

MSCI (2024) *MSCI Fixed Income Climate Paris Aligned Indexes Methodology*, MSCI, accessed 30 June 2024. <https://www.msci.com/index/methodology/latest/FICC>

MSCI (2022) *MSCI ACWI IMI Clean Energy Infrastructure Index*, MSCI, accessed 05 July 2024. [https://www.msci.com/eqb/methodology/meth\\_docs/MSCI\\_ACWI\\_IMI\\_Clean\\_Energy\\_Infrastructure\\_Index.pdf](https://www.msci.com/eqb/methodology/meth_docs/MSCI_ACWI_IMI_Clean_Energy_Infrastructure_Index.pdf)

NABERS (2024) *NABERS Energy*, NABERS, accessed 12 June 2024. <https://www.nabers.gov.au/ratings/our-ratings/nabers-energy>

Regulation (EU) 2019/2089 of the European Parliament and of the Council of 27 November 2019 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks (2019) EUR-Lex.

S&P Dow Jones Indices (2024) *S&P Paris-Aligned & Climate Transition (PACT) Indices Methodology*, S&P Dow Jones Indices, accessed 05 July 2024. <https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-paris-aligned-climate-transition-pact-indices.pdf#page>

S&P Dow Jones Indices (2024) *Dow Jones ESG Real Estate Indices Methodology*, S&P Dow Jones Indices, accessed 05 July 2024. <https://www.spglobal.com/spdji/en/documents/methodologies/methodology-dj-esg-real-estate-indices.pdf>

S&P Dow Jones Indices (2024) *Dow Jones Brookfield Global Green Infrastructure Index Methodology*, S&P Dow Jones Indices, accessed 05 July 2024. <https://www.spglobal.com/spdji/en/documents/methodologies/methodology-dj-brkfld-global-green-infra-index.pdf>

Solactive (2024) *Explanation of how key elements of the benchmark methodology reflect Environmental, Social and Governance (ESG) Factors – Solactive CarbonCare Asia Pacific Green REIT Index PR*, Solactive. accessed 04 June 2024. [https://www.solactive.com/wp-content/uploads/solactiveip/en/ESG\\_Methodology\\_Statement\\_DE000SL0BUE2.pdf](https://www.solactive.com/wp-content/uploads/solactiveip/en/ESG_Methodology_Statement_DE000SL0BUE2.pdf)

The Association of Superannuation Funds Australia Limited (ASFA) (2024) *Superannuation statistics – June 2024*, ASFA, accessed 20 June 2024. <https://www.superannuation.asn.au/resources/super-stats/>

The Hon Dr Jim Chalmers MP (19 June 2024) A Sustainable Finance Roadmap to unlock more private capital [media release], The Hon Dr Jim Chalmers MP, accessed, 21 June 2024. <https://ministers.treasury.gov.au/ministers/jim-chalmers-2022/media-releases/sustainable-finance-roadmap-unlock-more-private-capital>

The European Commission, Commission Delegated Regulation, 2020/1816 L\_2020406EN.01000101.XML (2020)

The Treasury (2024) Annual Superannuation Performance Test -design options Consultation paper, The Treasury, Australian Government, accessed 22 May 2024. <https://treasury.gov.au/sites/default/files/2024-03/c2024-471223-cp.pdf>

The Treasury (2024) *Mandatory climate-related financial disclosures*, The Treasury, Australian Government, accessed at 15 July 2024. <https://treasury.gov.au/sites/default/files/2024-01/c2024-466491-policy-state.pdf>

Transition Pathway Initiative (2021) *Transition Pathway Initiative – Methodology*, Transition Pathway Initiative, accessed 03 June 2024. <https://www.transitionpathwayinitiative.org/methodology>

Treasury Laws Amendment (Financial Market Infrastructure and Other Measures) Bill 2024

United Nations-Convened Net Zero Asset Owners Alliance (2022) *EU Climate Benchmarks - All members call*, United nations-convened net zero asset owners alliance, United Nations Environment Programme – Finance Initiative (UNEPFI), accessed 30 May 2024. [https://www.unepfi.org/wordpress/wp-content/uploads/2022/02/Climate-Benchmarks\\_all-members-presentation.pdf](https://www.unepfi.org/wordpress/wp-content/uploads/2022/02/Climate-Benchmarks_all-members-presentation.pdf)

---

**For further information  
please contact:**

**CASSANDRA WILLIAMS**  
System Lead, Sustainable Finance  
[cassandra.williams@climateworkscentre.org](mailto:cassandra.williams@climateworkscentre.org)

**RYAN COOK**  
Program Impact Manager  
[ryan.cook@climateworkscentre.org](mailto:ryan.cook@climateworkscentre.org)

**WILLIAM SUWANDRI**  
Senior Research Officer  
[william.suwandri@climateworkscentre.org](mailto:william.suwandri@climateworkscentre.org)

Climateworks Centre  
Level 27, 35 Collins Street  
Melbourne Victoria 3000  
[Wurundjeri Country](#)

Climateworks Centre, 2024, *Integrating 1.5 Degrees Celsius-Alignment in Your Future Your Super (Preliminary Report)*

Published by Climateworks Centre  
Melbourne, Victoria, June 2024  
© Climateworks Centre 2024

This work is subject to copyright.  
Apart from any use permitted under the  
Copyright Act 1968, no part may be  
reproduced by any process without  
written permission from the publisher.

This publication can be downloaded at:  
[www.climateworkscentre.org](http://www.climateworkscentre.org)

ISBN: 978-0-9941725-9-4



MONASH  
SUSTAINABLE  
DEVELOPMENT  
INSTITUTE

Climateworks Centre operates as an  
independent not-for-profit within  
Monash University.