

The Croda Pension Scheme

Trustee's Report in respect
of the Occupational Pension
Schemes (Climate Change
Governance and Reporting)
Regulations 2023

March 2024

For the Scheme Year ending 30 September 2023

Table of Contents

Section 1: Introduction and Chair Foreword	4
Introduction	5
Section 2: Governance	6
Section 3: Strategy	8
Section 4: Risk Management	15
Section 5: Metrics and Targets	17

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Section 1: Introduction and Chair Foreword

A foreword from the Chair of the Croda Pension Scheme

Welcome to The Croda Pension Scheme's first report on Climate Change and Governance as now formally required by the regulatory framework applicable to UK registered pension schemes. As a scheme, we were relatively well positioned to meet the challenges presented by climate change more generally and the specifics of the new reporting requirements. As any of you reading this as members of the Scheme will probably be fully aware, our sponsoring employer, Croda International Plc, has been at the forefront of sustainability in its wider sense for many years. As such, many Trustee Directors past and present have been well versed in sustainability, ensuring we have had the benefit of the latest thinking around both the associated risks and any underlying sustainability & climate change reporting.

If we accept that climate change is fundamentally being driven by 'man-made' global warming, and the evidence is compelling, then it is clear action is required. Pension schemes can certainly make some contribution to the greater good, but unless governments make more direct intervention and we as individuals change our own behaviour, particularly in relation to consumption, any action schemes take will be futile in arresting climate change. Any well governed scheme will already have had climate change as a risk for consideration, and you should be able to see from our report that we are managing the risks well, both qualitatively and also quantitatively from the output of the scenario analysis, whilst already taking some benefit of the early opportunities offered with investments in both wind and solar power.

We are currently unconvinced that the required quantitative reporting of greenhouse gas emissions adds any value where data is either incomplete or inaccurate, and have therefore included data accuracy and completeness as a chosen metric. We will continue to engage with investment managers to encourage robust data collection and accurate greenhouse gas emissions reporting, enabling comparisons to be made and to help inform our investment decision making.

Graham L. Myers

Chair of the Croda Pension Scheme

March 2024

Introduction

The Trustee of The Croda Pension Scheme (hereinafter referred to as the “Trustee” and the “Scheme”, respectively) presents its annual report under the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the “Regulations”) for the year ended 30 September 2023.

The Scheme is now subject to the requirement to produce disclosures in line with the recommendations of the Task Force on Climate Related Financial Disclosures (TCFD), as transposed into UK law in 2021. The aim is to improve and increase reporting of climate-related financial risks and opportunities.

The TCFD framework requires disclosures in four broad categories:

- **Governance:** around climate-related risks and opportunities.
- **Strategy:** the actual and potential impact of climate-related risks and opportunities on the strategy and financial plans of the Scheme.
- **Risk management:** how the scheme identifies, assesses, and manages climate-related risks
- **Metrics and targets:** the metrics and targets used to assess and manage climate-related risks and opportunities.

This report sets out the Scheme’s approach to compliance in each of these four areas.

Figure 1. TCFD Framework



Section 2: Governance

The Trustee has identified climate change, alongside other Environmental, Social and Governance (ESG) factors, as important risks and opportunities which require sustained, long-term oversight and management. The Trustee has ultimate responsibility for setting the Scheme's strategy, policies, and actions in this area.

The Trustee has delegated the day-to-day responsibility of ensuring that the established policy for monitoring climate-related risk and opportunities is integrated in the Trustee's investment strategy to the Scheme's Investment Committee (IC). The IC oversees ongoing investment matters and it operates to develop the Scheme's investment and funding strategy on behalf of the Trustee. It will also liaise with the Company on matters relating to the investment strategy, funding, and covenant insofar as relevant to investment matters. The Trustee retains ultimate responsibility for setting the Scheme's strategy, policies and actions in this area.

The main third-parties that support the Trustee in implementing its policies in relation to climate change, Sustainable Investment and risk management more widely, are the Scheme's:

- **Investment consultant (WTW)** – Helps the Trustee formulate investment beliefs and to reflect these in the Scheme's investment policies and strategy. The investment consultant also helps the Trustee with conducting scenario analysis, advises on how climate-related risks and opportunities might affect the Scheme over the short, medium and long term, assists with the collection of data for reporting the Trustee's chosen climate metrics and provides ad hoc specialist advice on a variety of investment matters, including risk management. The Trustee believes it has the necessary skills and knowledge to challenge advice and analysis received from the investment consultant.
- **Investment managers** – Responsible for managing climate change risks and opportunities within their mandates as per their guidelines. This includes the selection of assets as well as the managers' stewardship activities. The Trustee meets with the managers on at least an annual basis to assess the underlying managers' competencies through an annual sustainable investment questionnaire which the IC and WTW produce. The Trustee also receives regular updates on the investment managers' approach to ESG integration and stewardship activities from WTW. Additionally, the investment managers provide a range of climate specific data, such as greenhouse gas ("GHG") emissions, for the Scheme.
- **Other advisors** – The Trustee also takes advice from the Scheme Actuary and Legal Advisor regarding the extent to which climate change may affect the funding strategy of the Scheme (and the ability of the sponsor to support the Scheme). Alongside this, to further satisfy itself, the Trustee also receives updates from the Sponsor on developments in their strategy to manage climate change related risks and opportunities.

The key overarching investment policies are detailed in the Scheme's Statement of Investment Principles (SIP) which can be found online at the following link:

<https://www.croda.com/mediaassets/files/corporate/about-us/croda-sip.pdf?la=ja-JP>.

The Trustee has considered how sustainability and ESG factors should be taken into account in the selection, retention and realisation of long-term investments. This includes climate change which the Trustee recognises can present potentially material risks to the portfolio but may also present new investment opportunities. The Trustee also maintains a set of Sustainable Investing beliefs which were agreed in March 2022 and are regularly considered alongside all of the Trustee's policies.

As part of the day-to-day management of the assets, the Trustee has largely delegated to the investment managers the considerations of climate risk as part of their overall management processes. As a result, the Trustee expects the Scheme's investment managers, where appropriate, to have integrated ESG factors as part of their investment analysis and decision-making process and will review managers with regard to relevant matters, including performance and risk, as well as ESG factors. The IC meets with the managers on at least an annual basis and asks them to present on the managers' policies on ESG, approach, stewardship, and engagement policies. The IC keeps records of manager presentations and meeting minutes.

The Trustee received focused training geared towards understanding the TCFD requirements and how they align with the Scheme's overall sustainability policy in August 2022, March 2023 and September 2023. These sessions focused on the various pillars of TCFD, including Metrics and targets, Risk management, and Strategy.

The IC and Trustee Board meet at least quarterly and meetings provide an opportunity for the Trustee to receive updates on climate-related risks and opportunities and discuss output from the processes with relevant advisers. The sessions also provide a forum for open dialogue between the Trustee and its advisers and provide the opportunity to question or challenge information provided to the Trustee. The Trustee seeks to ensure an appropriate amount of time and resource is allocated to overseeing all risks and opportunities relevant to the Scheme, including climate-related risks and opportunities.

The Trustee has also recently formed a separate ESG working party that, over the next Scheme year, will look to focus on reviewing and establishing more ESG and climate risk policies for the Scheme if appropriate.

Section 3: Strategy

The Trustee believes that part of its fiduciary duty is to manage the risks and opportunities associated with climate change within the Scheme's investment portfolio. Climate change is potentially a financially material consideration, and the Trustee has determined that climate change could have an impact on the returns on its investments and its funding strategy.

To appropriately assess the impact of the climate change scenario analysis, the Trustee has agreed the suitable time horizons over which climate risks and opportunities should be considered. These timeframes considered are explained below:

- **Short Term** – three years, this is the defined period between actuarial valuation cycles at which the funding strategy is typically revisited in detail.
- **Medium Term** – seven years, this is the timeframe over which significant climate action is expected and climate transition risks are expected to emerge.
- **Long Term** – to 2050, in line with the Paris Agreement's target date of 2050 for net zero alignment globally.

The Trustee has currently identified the following climate-related risks and opportunities:

- **Regulatory Risk.** This is the impact of failing to meet existing and evolving regulations which require pension schemes to explicitly consider the risks associated with climate change.
- **Transition risks and opportunities.** This relates to the risks and opportunities arising from efforts made to transition towards a net-zero economy (both domestically and globally) to limit climate change. These risks and opportunities are generally expected to occur in the short to medium term time horizon identified above, with some perhaps occurring in the short term. Risks arising could include regulatory or societal changes rendering parts of the business of invested companies worthless – for example, fossil fuels 'in the ground' which become economically unviable to extract due to a lack of a suitable market or due to regulations preventing its extraction. Opportunities include early investment in assets, which are likely to benefit from climate change adaptations, such as green energy providers. The Trustee continues to actively look to mitigate the risks and take advantage of opportunities which occur in order to improve the likelihood of meeting its short and medium-term funding and investment goals. The Scheme began investing in wind and solar energy generating assets in 2016, and more recently invested in a Swiss based energy transition fund.
- **Physical risks.** This relates to the direct effects of climate change on the Scheme and its members. These risks are expected to be longer-term in nature, but they are also expected to be relatively limited in scope, including the effects of climate change-related weather and other natural events on the businesses of invested companies, and the effect of changing temperatures on the mortality of Scheme's members. These could have varying effects on the funding and investment strategy of the Scheme, but the direction and size of the effects are unlikely to be clear for a considerable period of time. This is therefore considered to fall between the medium and long-term time horizon identified above.

Medium-term risks are those that will be present in the timeframe to 2030, namely market risk and the increasing early signs of physical risks.

In the long-term, the physical risks resulting from climate change may become material. The precise impact of these is very difficult to ascertain at this point, limiting the ability of the Trustee to manage these risks. The Trustee expects the Scheme's managers to continue to work over the coming years to improve the quality of data and the resources available in order to better understand the risks and opportunities and to position the Scheme's investments accordingly.

Climate Scenario Analysis

For the Scheme's scenario analysis, the Trustee has considered four separate scenarios which are in part defined through their success, or otherwise, in meeting the Paris Agreement target of a sub-2.0°C temperature rise.

The scenarios differ in the size of the physical risks, based on the resulting temperature impacts, but also in the size of the transition risks. In the view of the Trustee, the four scenarios selected reflect an appropriate range of plausible decarbonisation pathways and are relevant in the context of the Scheme's journey and funding plans. The Trustee recognises that there is the potential for more or less extreme outcomes than those reflected in the chosen scenarios.

	Lowest Common Denominator	Inevitable Policy Response	Global Coordinated Action	Climate Emergency
Description	A “business as usual” outcome where current policies continue with no further attempt to incentivise further emissions reductions. Socioeconomic and technological trends do not shift markedly from historical patterns.	Delays in taking meaningful policy action result in a rapid policy shift in the mid to late 2020s. Policies are implemented in a somewhat but not completely co-ordinated manner resulting in a more disorderly transition to a low carbon economy.	Policy makers agree on and immediately implement policies to reduce emissions in a globally co-ordinated manner. Companies and consumers take the majority of actions available to capture opportunities to reduce emissions.	A more ambitious version of the Global Coordinated Action scenario where more aggressive policy is pursued and more extensive technology shifts are achieved, in particular the deployment of Negative Emissions Technologies at scale.
Temperature rise	~3.5°C	~2.0°C	~2.0°C	~1.5°C
Renewable energy by 2050	30-40%	80-85%	65-70%	80-85%
Physical risk level (longer term)	High	Low – Medium	Low	Low
Transition risk level (shorter term)	Low	High	Low – Medium	Medium – High

Below, the Trustee has illustrated the forecasted impact of the climate change scenarios on the Scheme's funding level. The key results from the climate scenario analysis are outlined below. The Trustee has considered these over a timeframe that is consistent with the Scheme's longer term time horizon (c.20 years). The Trustee recognises that assuming such climate scenarios are priced in gradually, year by year, is an unrealistic expectation and in practice this is likely to be far less linear. The Trustee has therefore also included a one-off shock which seeks to illustrate the impact if climate change was to be reflected instantaneously. This assumes that markets immediately price in the transition and physical risks over the next 20 years and that the market initially overreacts to this news in struggling to price in the actual impact. Whilst this is potentially unrealistic, the Trustee thinks this helpfully stress tests the assumptions made in the analysis and helps consider how robust the funding strategy might be. The Trustee also recognises the uncertainty in the underlying assumptions and that, in reality, the shocks experienced could be larger or smaller.

	Lowest Common Denominator	Inevitable Policy Response	Global Coordinated Action	Climate Emergency
Global Adaptive Cap ESG Equity	-19.7%	-28.5%	-17.7%	-23.0%
Developed Market Equity – smart beta	-21.1%	-29.5%	-18.4%	-24.7%
Unlisted Real Estate	-8.6%	-12.5%	-6.4%	-8.4%
Unlisted Infrastructure	-14.1%	+48.0%	+41.7%	+56.7%
Secure Income Assets	-8.6%	+1.7%	+6.8%	+5.6%
Hedge Funds	-7.8%	-12.7%	-7.5%	-10.7%
Long Term Credit	-1.7%	-18.4%	-7.9%	-17.0%
LDI and Cash	0.0%	0.0%	0.0%	0.0%

Liability impact analysis

As part of the Trustee's review of climate scenarios, the Trustee has also considered the impact of climate change on the Scheme's liabilities with the aid of the Scheme Actuary. The impacts of climate change may also both increase and decrease mortality rates versus expectations, either directly or indirectly.

Direct impacts relate to increases in global and UK temperatures throughout the year. A warmer winter could see a reduction in "excess" winter deaths, although this may be offset by the impact of more summer heatwaves (which cause "excess" summer deaths), more weather-related disruption, and larger swings in temperature. The Trustee would expect small increases in global temperatures (as under the Global Coordinated Action scenario) to be more likely to increase UK life expectancy, but more dramatic increases in global

temperatures (like under the Lowest Common Denominator scenario) may see a reduction in longevity.

Indirect impacts are comparable to the transition risks on the asset side, arising due to changes in society to combat or adapt to climate change.

It is difficult to say with any certainty what the precise impact of each climate change scenario would be on mortality. The Trustee's approach has therefore been to model a range of different mortality outcomes – from a large increase in life expectancy to a modest decrease in life expectancy – and to calculate the impact on the liability value of those outcomes. Probability weightings are then assigned for each outcome within each scenario to calculate an estimated liability impact under each of the four scenarios.

As with the asset impact discussion, there is a question of timing on the liability impact. As part of the valuation process a mortality assumption is made and this assumption can be changed as the impacts of climate change materialise. Whilst not quite as elastic as asset pricing, the Trustee still thinks there is merit in looking at the liability impact both from the perspective of an immediate capitalisation of the impact and a slower materialisation through time.

	Lowest Common Denominator	Inevitable Policy Response	Global Coordinated Action	Climate Emergency
Shock impact on liability value	-4.9%	-1.8%	+5.4%	+0.4%

Note: Liability shocks are based on changes to the Scheme's liability value under different long-term mortality improvement assumptions provided by the Scheme Actuary

Impact on the Sponsor and covenant

During the year the Trustee has not directly analysed the impact of climate change on the Sponsor through the climate scenarios assessed. The Trustee has however engaged with the Sponsor to understand how they incorporate ESG and climate change into their risk assessments and lines of business. The Sponsor provided training to the Trustee board during November 2023 which outlined their approach in this area and whilst this was not assessed directly the Trustee took comfort in the Sponsor's approach and assessment. The Trustee will continue to review whether more detail analysis on the impact from climate change on the Sponsor is required. The sponsor also produces its own extensive TCFD report which can be found in its latest Annual Report and Accounts and at <https://www.croda.com/en-gb/investors/annual-report>.

Scenario Analysis Results

The Trustee has combined the asset and liability shocks from the previous sections to consider how the Scheme's funding level and deficit would be impacted under each scenario using both the actual asset allocation as at 31 March 2023 and the updated strategic asset allocation agreed following a recent strategy review. This analysis assumes a base asset value of £860.2m and a Technical Provisions liability value of £763.4m.

31 March 2023	Actual Allocation	Updated Strategic Asset Allocation
Global Equities	3.6%	10.0%
Private Markets (includes unlisted real estate, unlisted infrastructure and secure income assets)	26.0%	24.0%
Hedge Funds	16.8%	0.0%
LDI and Cash	53.6%	56.0%
Buy and Maintain Credit	0.0%	10.0%

31 March 2023 actual allocation

	Lowest Common Denominator	Inevitable Policy Response	Global Coordinated Action	Climate Emergency
Change in assets	-£41.2m (-4.8%)	+£6.2m (+0.7%)	+£19.6m (+2.3%)	+£23.3m (+2.7%)
Change in liabilities	-£37.4m (-4.9%)	-£13.7m (-1.8%)	+£41.2m (+5.4%)	+£3.1m (+0.4%)
Change in funding level	+0.1%	+2.9%	-3.3%	+2.6%
Change in surplus	-£3.8m	+£20.0m	-£21.6m	+£20.3m

In three of the four scenarios we see an increase in the value of assets, largely driven by the allocation to unlisted infrastructure which includes renewable energy and other climate

focused projects that could be expected to see increased demand in a move to a carbon neutral world. In the Lowest Common Denominator scenario, higher physical climate risk and lower demand for these types of assets means the investments suffer a decrease in the underlying value of the assets. The Scheme's liability impacts are mixed with scenarios showing higher levels of physical climate risk (Lowest Common Denominator and Inevitable Policy Response) leading to heavier mortality and subsequent falls in the value of the liabilities. Under scenarios where physical risk is lower the impact results in increases in longevity and therefore increases in the value of the liabilities. At an overall level the largest impact is under a global coordinated action scenario whereby the increase in longevity and the value of the Scheme's liabilities outweighs the increases in the Scheme's assets.

Updated Strategic Asset Allocation

	Lowest Common Denominator	Inevitable Policy Response	Global Coordinated Action	Climate Emergency
Change in assets	-£41.3m (-4.8%)	-£2.1m (-0.2%)	+£17.7m (+2.1%)	+£15.6m (+1.8%)
Change in liabilities	-£37.4m (-4.9%)	-£13.7m (-1.8%)	+£41.2m (+5.4%)	+£3.1m (+0.4%)
Change in funding level	+0.1%	+1.8%	-3.6%	+1.6%
Change in surplus	-£3.9m	+£11.7m	-£23.5m	+£12.5m

The overall impact on the funding level and surplus position is similar to the actual allocation, although the assets have fared slightly worse here owing to the increased allocation to equities which typically see more volatility than most other asset classes.

The results of the analysis provide comfort to the Trustee that the investment and funding strategy of the Scheme is resilient to climate risk and that the Scheme is expected to be relatively well protected against the impact of an instantaneous shock from climate change. The Trustee notes that the results of the analysis provide an illustration for the potential risks from climate change as opposed to accurate predictions of outcomes. It is expected that these scenarios will develop over time with wider industry engagement and consensus, and the Trustee intends to keep these under review. The Trustee intends to update this analysis at least every three years and will be testing annually whether this needs to be done more frequently, including if there have been material changes to the scenarios used or the Scheme's funding strategy.

Section 4: Risk Management

Risk management is of fundamental importance to pension management as all pension schemes are exposed to multiple risks. Climate change is a key risk and opportunity and therefore receives appropriate attention as part of the Trustee's ongoing risk management processes. The table below summarises a number of risks and opportunities that the Trustee has considered alongside some of the actions that have been taken, or could be taken, in the future:

Risks	<ul style="list-style-type: none"> The most material risks on the asset side for the Scheme are shown in scenarios with the highest level of transition risk owing to late or sudden policy action. In the absence of longevity hedging, the impacts of climate change are a potential source of longevity volatility.
Opportunities	<ul style="list-style-type: none"> Impact investments within the Scheme's Private Market Assets and increased climate focus within the Scheme's equity and future buy and maintain credit mandates. The impact of climate will be varied across industries and companies, which may open opportunities for active management or tilted passive strategies.
Mitigating Actions	<ul style="list-style-type: none"> The Trustee continues to closely monitor the Scheme's investment managers on how they integrate and manage climate risk on the Trustee's behalf. This includes meeting each manager at least once per year and quarterly reporting received directly from the asset managers or from WTW. Continued discussion and alignment with the Company will help ensure that elements such as regulatory and reputational risk associated with climate change are managed appropriately.

The Trustee aims to integrate climate change into its existing risk management processes through the following methods:

- Monitoring of climate metrics and targets to assess and monitor the Scheme's position
- Regular reviews of investment managers' approaches to ESG and climate as part of annual manager meetings

- Review of ESG integration and investment managers' TCFD reporting engagement at each quarterly IC meeting
- Consideration of climate risk within the Scheme's scenario analysis
- Recording of the Trustee's Sustainable Investment beliefs and SIP policies
- An assessment and consideration of climate as part of wider ESG factors in existing and new investment manager assessments
- Receipt of regular training on risk topics, including climate change, from advisors and investment managers

The Trustee has also recently formed a separate ESG working party that, over the next Scheme year, will focus on reviewing and establishing more ESG and climate risk policies for the Scheme if appropriate.

The below case study provides an example of an impact investment (investing in assets such as green energy) that is currently held in the Scheme's portfolio.

Case Study

Greencoat Solar II LP

Greencoat's solar business acquires and manages ground mounted solar assets in the UK. Each solar farm has a life span of over 25 years and preserves natural habitats through hedgerow and tree planting, placement of beehives, bat and bird boxes, and allowing animal grazing from neighbours.

- In 2020, Greencoat acquired 28 operating solar PV assets adding a further 224MW to its renewable power generation capacity.
- As at 31 December 2021, Greencoat owned 123 solar farms, managing 912GWh of net generation capacity.
- In 2021 alone, Greencoat's solar farms saved 365,000 tonnes of CO₂ from entering the atmosphere, and generated energy equivalent to powering 315,000 average homes.

Section 5: Metrics and Targets

Introduction and overview

A key facet of the Trustee's ongoing monitoring and management of climate change risk is having good data on the Scheme's exposure in this area. Although there are limitations with some of the metrics presented and the completeness of data, the Trustee believes that these can helpfully inform the Trustee of ongoing monitoring and management of the Scheme. The Trustee considers metrics across the Sustainable Investment spectrum, but the focus within this statement is those on climate change. The metrics disclosed have been selected from the following categories, as required by the regulations:

- An absolute emissions metric
- An emissions intensity metric
- An alignment metric
- One additional climate change metric

It is also important to be clear which emissions are captured within the above metrics and therefore the Trustee has referred to the categories of emissions identified within the Kyoto Protocol. These are as follows:

- **Scope 1 emissions:** all direct emissions from the activities of an entity or the activities under its control. For example, the emissions from a company's vehicles or from gas burnt to produce steam in its production processes.
- **Scope 2 emissions:** indirect emissions from electricity purchased and used by an entity which are created during the production of energy which the entity uses i.e., what were the emissions generated indirectly to produce the electricity a company uses from the national grid.
- **Scope 3 emissions:** all indirect emissions from the activities of the entity, other than scope 2 emissions, which occur from sources that the entity does not directly control. For instance, the emissions a company's suppliers have produced in providing raw materials to the company.

Due to the nature of the emissions, scope 3 emissions are significantly more difficult to calculate than scope 1 or scope 2 emissions for any given entity. It is also the case that, for some assets, even scope 1 and scope 2 emissions are inherently difficult to calculate. The Trustee has included Scope 1 and 2 emissions within the metrics displayed below and intend to include Scope 3 emissions in future iterations of this report once sufficient reliable data is obtained.

Selection of climate metrics

The following table details the rationale for the Trustee's selection of climate metrics:

Metric	Definition	Rationale
Total Carbon Emissions ("tCO ₂ e")	An 'absolute emissions' metrics which gives a measure of carbon emissions attributable to the Fund. This is calculated in line with the Greenhouse Gas (GHG) protocol methodology and currently includes only Scope 1 and 2 emissions.	Determined by the regulator
Carbon Footprint (tCO ₂ e / £m invested)	An 'emissions intensity' metric which gives a measure of how many equivalent tonnes of carbon emissions each £ million invested causes. This uses a comparable methodology as the total carbon emissions referenced above for underlying data and emissions attribution for companies.	It provides a direct measure of absolute emissions, which ultimately impact global outcomes and provides a simple comparable measure across portfolios of different sizes
Percentage of assets with approved Science based targets ("SBTi")	A 'portfolio alignment' metric which is a forward-looking measure of the percentage of assets with targets validated by the Science-Based Targets Initiative.	It provides a consistent verification of a company's alignment to the Paris agreement.
Data coverage and quality	A measure of the proportion of the Fund's assets for which the Trustee has high quality audited data, proxied data, or no data at all.	The Trustee believes it is important to monitor this as climate metrics are at an early stage and data is currently limited. Improved data quality and coverage is an area that the Trustee feels it can have most influence over the Scheme's investment managers and improvements would allow better decision making on future carbon metrics.
Avoided emissions ("tCO ₂ e")	The Trustee has also agreed to report avoided emissions from managers where this is applicable. This sets out emissions that the Scheme's managers have been able to reduce outside of their value chain as a result of the use of their product or service by their customers, for example wind power.	The Trustee believes that this is an important measure to capture the impact from the Scheme's private markets investments and held to highlight climate opportunities to the Trustee.

30 September 2023 Climate Metrics

We set out below the agreed upon metrics for the Scheme as at 30 September 2023. Please note that the assets below exclude balances held in the Trustee cash and liquidity accounts. Further important notes are set out on the following pages.

Manager	Fund	% of assets	Absolute Emissions (tCO ₂ e)	Carbon Footprint (tCO ₂ e/£m invested)	% assets with approved science based targets	% emissions data reported directly by issuers	% emissions data estimated	% data not reported	Avoided emissions (tCO ₂ e)
Alpha Real	Wind Renewables Income Fund	2.9%	0	0	n/a	100.0%	0.0%	0.0%	3,648
	Index Linked Income Fund	2.2%	0	0	n/a	68.0%	32.0%	0.0%	n/a
Blackstone	Fund of hedge funds	20.1%	2,278	-18.3	-	2.0%	80.0%	18.0%	n/a
Equitix	Equitix Fund IV LP	3.4%	1,912	73.2	6.0%	17.0%	73.0%	10.0%	9,799
Greencoat	Solar II	2.6%	51	2.6	0.0%	-	-	0.0%	5,000
Hartelt	Apollo long lease healthcare	0.0%	-	-	-	-	-	-	n/a
Innisfree	PFI Secondary Fund	4.5%	0	0	n/a	90.0%	0.0%	10.0%	n/a
LGIM	MSCI ACWI Adaptive Cap ESG Index	2.2%	1,236	74.7	34.8%	89.9%	6.0%	4.0%	n/a
	RAFI Global Reduced Carbon Pathway Index	2.0%	2,060	134.7	35.1%	95.5%	2.5%	2.0%	n/a
	LDI	46.7%	25,157	72.1	0.0%	0.0%	99.7%	0.3%	n/a
Macquarie	European Infrastructure Fund II	0.1%	13	12.7	0.0%	100.0%	0.0%	0.0%	n/a
M&G	European Property Fund	2.2%	46	2.2	-	49.0%	51.0%	0.0%	n/a
Patrizia	Hanover Property Fund	5.5%	125	-	-	-	-	-	n/a
SUSI	Energy Transition Fund	5.4%	-	-	-	-	-	-	-
Overall Scheme		100.0%	32,877	56.1	3.0%	16.9%	77.7%	5.4%	18,447
Overall Scheme (excluding LDI)		53.3%	7,720	17.4	16.3%	36.7%	51.9%	11.4%	18,447

Notes

Emissions data for all funds includes scopes 1+2 emissions only unless otherwise stated.

All data as at 30 September 2023 unless otherwise stated.

Funds that are missing the required data have been excluded from the calculation of any relevant Scheme averages and totals.

All data is presented as provided by the Scheme's asset managers unless otherwise stated. The Trustee has not independently audited any data that has been provided.

Carbon footprint data provided in tCO₂e/\$m has been converted to tCO₂e/£m at a rate of 0.819 GBP to one USD.

Carbon footprint data provided in tCO₂e/€m has been converted to tCO₂e/£m at a rate of 0.867 GBP to one EUR.

The Trustee has included data on avoided emissions, where applicable, as an additional metric to highlight the positive impacts achieved by funds which invest in assets associated with the production of renewable energy. As this metric is less standard than others, the precise methodology used by the asset managers may differ, and as such figures may not be directly comparable from one manager to another.

Assets held in the Trustee bank account and LGIM liquidity funds have been excluded.

Totals may not sum due to rounding.

Fund specific notes:

Alpha Real Wind Renewables Income Fund

Alpha Real note that the fund is not an emitter as they produce 100% renewable energy and that SBTi targets are not applicable to the assets held. Avoided emissions have been calculated based on the UK Government GHG Conversion Factors for Company Reporting 2021 at 212.33gCO₂e/KWh.

Alpha Real Index Linked Income Fund

The manager notes that since the fund's investments consist of FRI leases, the tenant has operational control over the property, and therefore any emissions associated with these assets fall within scope 3. Scope 3 emissions for the Scheme's holding in the fund as at 31 December 2022 were reported at 242.7 tCO₂e. The manager has also confirmed that SBTi targets and avoided emissions are not applicable metrics for the assets held. Data quality metrics are stated as percentages based on floor area of properties for the collection of scope 3 emissions.

Blackstone Fund of Hedge Funds

This strategy employs both long and short positions in listed equity, listed corporate bonds, private equity and private corporate bonds. For the purposes of reporting emissions, the manager has provided net figures whereby emissions from short positions are subtracted from emissions from long positions. For example, the (weighted) carbon footprint of the fund's long positions was 36.6 tCO₂e/£m and the (weighted) carbon footprint of the fund's short positions was 54.9 tCO₂e/£m, giving an overall carbon footprint of 36.6 – 54.9 = -18.3 tCO₂e/£m.

Equitix Fund IV LP

Data quality figures are reported for the calendar years of 2021-22 for scopes 1, 2 and 3 emissions. Equitix uses DESNZ's "all non-renewable fuels" emissions statistic of 424 tonnes of carbon dioxide per GWh of electricity supplied in the Digest of UK Energy Statistics (July 2023) to calculate avoided emissions.

Greencoat Solar II LP

Greencoat state that data coverage is 100% for scopes 1, 2 and 3 emissions, although did not confirm the proportion that is based on estimates.

Hartelt Apollo Long Lease Healthcare

Due to the recent inception of this fund, data is currently unavailable for the reporting period.

Innisfree PFI Secondary Fund

Data as at 31 December 2022. Innisfree note that scopes 1+2 emissions for the fund are de minimis. Scope 3 emissions were estimated to be 72,739 tCO₂e. The manager has stated that SBTi targets and avoided emissions are not relevant metrics for the fund.

LGIM RAFI Global Reduced Carbon Pathway Index

This index strategy tends to overweight traditionally high carbon-intensity sectors, such as energy, utilities, and materials. By design, the index's overall carbon intensity is expected to reduce at each rebalance at a rate of approximately 3% per year.

LGIM LDI

Emissions for LDI mandates are calculated based on the CO₂e emissions of the United Kingdom and then scaled to reflect an investor's share of the total gilts in issuance. As such, all data reported is estimated. Derivatives including repos are not presently reflected in this methodology.

Macquarie European Property Fund II

Data as at 31 December 2022. Macquarie state that they do not currently report avoided emissions.

M&G European Property Fund

Data as at 31 December 2022. M&G state that the fund does not currently verify carbon emission related targets against the Science Based Targets initiative as they understand this can only be verified at an organisational level and not for individual financial vehicles. Avoided emissions are not measured for this fund.

Patrizia Hanover Property Fund

Data as at 31 December 2022. The fund does not report Carbon Footprint but does report a GHG intensity measure of Kg CO₂e / sqm floor space. M&G state this figure as 22.6 Kg CO₂e / sqm for scopes 1, 2 and 3 as at 31 December 2022.

SUSI Energy Transition Fund

SUSI state that data is not yet available, but is expected to be reported later in 2024.

Conclusion

Data Quality

Whilst the Trustee has aimed to carry out the analysis as far as it is able, the availability of data is dependent on external factors which are largely outside of the Trustee's control, including not all companies disclosing their carbon emissions.

Whilst the Trustee aims for 100% data quality for its underlying investments, it understands that there are limitations with data availability, particularly for private market assets. The Trustee has reviewed the information and plans to further engage with the managers to understand their ability to provide this data going forward.

The Trustee will monitor how these metrics evolve over time on an annual basis and understand the drivers for change.

Targets

The Trustee has agreed to target achieving 100% data coverage within the next five years using this year as a baseline. The Trustee believes this is an area that they can have the most impact and influence in the short term. The IC noted a desire to focus on 100% data coverage before then shifting focus to improving the quality of data before then assessing a potential emissions-based target in the future.

Going forward

The Trustee is continuing to monitor the evolving climate measurement landscape with the expectation that the robustness of the metrics will improve over time. The Trustee looks forward to sharing updates on its progress in monitoring and managing climate risks and opportunities over the coming years.