

Anglian Water Group Pension Scheme

A tall, white, tapered lighthouse with a black lantern room and a glowing light inside. It stands on a rocky outcrop. To its right is a small, white, single-story building with a dark roof. The scene is set at sunset or sunrise, with a sky transitioning from deep blue at the top to vibrant orange and pink near the horizon. The calm water reflects the colors of the sky. In the foreground, several dark, jagged rocks are visible in the water.

Climate change report

A report for members by the Anglian Water Group Pension Trustee Limited as the Trustee of the Anglian Water Group Pension Scheme

Scheme year to 31 March 2025

Why have we written this report?



The UK has become the first G20 country to make it mandatory for Britain's largest companies and financial organisations to disclose their climate-related risks and opportunities.

This is part of the government's commitment to making the UK financial system the greenest in the world.

This report provides members the opportunity to find out more about the work carried out by the Trustee in relation to climate change. It focuses on the period to 31 March 2025.

We recognise that the content of this report is quite technical. We have used plain English wherever possible, but a glossary is included in Appendix 2 to help you understand the technical terms better.

It is the third climate change report by the Trustee of the Scheme. We hope you find it informative and would welcome any feedback.

David Farmer

Chair of the Anglian Water Group Pension Trustee Limited

Overview

The Trustee of the Anglian Water Group Pension Scheme recognises the significance of climate change as a major issue that poses significant risks to society, the economy and the financial system as a whole. The Trustee also recognises that transitioning to a lower carbon economy will create opportunities for investors to invest in lower carbon sectors and new technologies.

Climate change could materially affect the Scheme's financial position. For example, through physical risks permanently impairing the value of assets and through transition risks impacting the returns of high emitting entities. Therefore, the Trustee attempts to identify these risks, assess their potential impacts and, where necessary, takes steps to reduce climate related risks. This is done in order to provide greater security to the benefits that the Scheme's members expect to receive.

This is the Trustee's third climate change report. It aims to meet the requirements of UK climate regulations for pension schemes (in line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations) and to follow the Department for Work and Pensions' statutory guidance. It describes how the Trustee has identified, assessed and managed climate-related risks and opportunities in relation to the main defined benefit section of the Scheme during the Scheme year to 31 March 2025 (the "Scheme Year"). An overview of the Scheme is included in Appendix 2.

Climate change is an issue the Trustee has engaged with for some time before the regulations came into force. The Trustee considers that climate change requires regular monitoring and action. In this report, we describe strategic activities and policies the Trustee has engaged with and established on an ongoing basis. These are relevant to the current and subsequent scheme years.

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Published alongside the Scheme's annual report and accounts for the Scheme year to 31 March 2025 and available online at <https://awgpension.co.uk/documents/>

Summary

This report describes the activities and approach taken by us (the Trustee) to understand and reduce the climate-related risks faced by the Scheme, and to potentially take advantage of any investment opportunities as part of the transition to a lower carbon economy.

The following points are a summary of the detailed report that follows:

- Sustainability, including climate change, remains a priority for us. We continue to believe that appropriate treatment of climate-related risks and opportunities for the Scheme's investments should improve outcomes for our members through better long-term returns and lower risk.
- Our Policy on Sustainable Investing and net zero commitment remains in place, with the aim of helping deliver members' benefits while also contributing, as part of that, to a better and more sustainable world. We also encourage our advisers to incorporate climate change and sustainability into their work in relation to the Trustee's commitments.
- We have continued to work to identify risks and opportunities to the Scheme arising from physical changes to the climate itself and from steps being taken to limit climate change.
- Following discussions with the fund manager of one of our key long-term bond portfolios, at the start of 2024 we incorporated and implemented a number of sustainability related updates into the manager's guidelines. These included the introduction of a decarbonisation target aligned with our net zero commitment, the introduction of a limit (which decreases over time) on the exposure to companies without credible net zero commitments, an allocation to impact bonds and restrictions on the allocation to controversial industries/companies.
- Building on this, over the Scheme year the Trustee reviewed the overall investment strategy and agreed to move to a long-term cashflow-focused approach. As part of this, the investment guidelines for the Scheme's long-term bond portfolio were adjusted to allow a broader range of bond exposures to be included. The sustainability guidelines were reviewed and updated in September 2024 to reflect these changes, while seeking to preserve the core principles introduced in 2023.

Summary

- We reviewed our climate scenario analysis that we conducted in 2022, which provided a view of how climate risks and opportunities might affect the funding level of the Scheme under different climate scenarios. We concluded that, while there were some differences in the updated strategies compared to our view of the long-term strategy in 2022, the conclusions from that review remain valid and we put in motion the next climate scenario analysis review (due in late 2025). We had previously assessed the investment portfolios under two different potential investment de-risking strategies (de-risking over time and a delayed de-risking at a single future date). We found that de-risking over time helped reduced the funding level impact of climate change under all climate transition pathways we analysed. Unsurprisingly, of the scenarios we examined, a failed transition would have the most significant negative long-term effect on the funding level under both de-risking strategies.
- With the help of our advisers, we regularly assess our fund managers' sustainability practices including their ability to protect the Scheme's assets from negative impacts of climate change and we engage with them on any matters of concern.
- During the year to 31 March 2025, we received a presentation from a representative of the Scheme's sponsor on how it was preparing for the impact of climate-related risks and opportunities. We considered how that might impact the employer covenant. This built on the work carried out in previous years which included consideration of covenant climate-related risk and opportunities over time and the impact on the covenant, as far as able, in the context of the Scheme's funding strategy. With the help of our covenant advisors, we are due to consider key covenant climate-related risks and opportunities as part of our covenant monitoring framework, to the extent relevant sponsoring employer information is available
- Over the year, we also agreed to implement two interim targets to support our overall net zero objective. For our public corporate bond holdings, we are targeting a 63% weighted exposure to issuers with science-based emissions reduction targets by 2030. In addition, for both our public corporate bond and illiquid credit holdings, we aim for 70% of financed emissions to be either covered by credible engagement activity or aligned with net zero by 2030. We have communicated these targets to our investment managers through our investment adviser, who is actively engaging with them to explore how these targets can be effectively implemented within the portfolios and consequently reported against.

Summary

- We collect data on four climate-related metrics: total emissions, carbon footprint (emissions per £m invested), portfolio alignment (a measure of alignment with a transition to a net zero economy) and data quality.
- We have agreed to set a target against the fourth metric – data quality – by 31 December 2026, which aims to increase the emissions data quality provided by fund managers. There had been good progress by 30 September 2024 in comparison to the reference (or baseline) date. Progress is shown below, for data quality for assets within scope (further details on this is set out in the Targets section).
- We collected emissions data on the Scheme's assets, including their carbon footprint, to help us understand and monitor climate-related risks and identify any data gaps. It is widely recognised that there remain shortcomings in the quality and completeness of the emissions data available for many assets, and there is not yet an industry wide consensus on how to calculate the emissions for some assets such as asset backed securities and derivatives. Our investment adviser continues to engage with our investment managers to encourage improvement in both the quality and the coverage of reporting on climate data.

	Reference (or baseline)	Current progress	Target
Data quality	31 Dec 2022	30 Sep 2024	31 Dec 2026
Reported emissions	22.5%	55%	61%
Estimated emissions	14.3%	9%	39%



Governance

1. The Trustees' role

The Trustee increased focus on Environmental, Social and Governance (ESG) issues in the summer of 2021 with three dedicated responsible investment related training sessions. The Trustee subsequently set a Policy on Sustainable Investing and a net zero commitment with the aim of helping deliver members' benefits while also contributing, as part of that, to a better and more sustainable world. These were reviewed and updated during the Scheme Year. The Trustee has encouraged its advisers to incorporate climate change and broader responsible investment issues in strategy advice and monitoring.

Climate-related activities have been covered in multiple meetings through the Scheme Year alongside other agenda items. In particular, there was a 90 minute meeting dedicated to responsible investment held in February 2025. A similar meeting is expected to occur annually to provide the Trustee with an appropriate time to dedicate to responsible investment issues, including covering climate risks and opportunities. Meeting materials are provided in advance of the meeting to allow the Trustee time to consider and challenge advice provided (for example, when considering suitability of recommended climate targets or considering an updated process for assessing the sponsoring employer's approach to climate change).

Responsible investment and climate change metrics have been covered as part of quarterly investment reporting since 2021. This regular focus and pressure on the fund managers to provide information has helped push the importance up the agenda and helps the Trustee with its analysis of climate-related exposures. These metrics are now updated every six months.

In March 2022, the Trustee agreed a Climate Governance Statement. This Governance Statement lays out the division of responsibilities between Trustee, actuarial adviser, investment adviser, covenant adviser, legal adviser and investment managers in order to ensure appropriate consideration of the climate-related risks and opportunities relevant to the Scheme and so that the Trustee can be confident that its statutory and fiduciary obligations are being met. This was reviewed and updated as necessary during the Scheme Year. The roles and responsibilities are summarised below.

The Trustee has ultimate responsibility for ensuring effective governance of climate change risks and opportunities in relation to the Scheme. This is often done by the Trustee Board, with support from the Trustee's advisers and the Trustee Secretary. The Trustee has, on occasion, delegated the initial work on climate-related matters to a subset of the Trustee but all climate-related work is agreed by the full Trustee Board. The Trustee is supported by advisers in incorporating climate change throughout the Scheme's activities as appropriate. The Scheme's investment adviser leads on climate-related matters. All advisers are expected to work with the other advisers as appropriate to ensure a joined-up approach.

Trustee Chair

It is the Trustee Chair's responsibility, with support from the Trustee Secretary, to ensure that sufficient time is allocated for consideration and discussion of climate matters by the Trustee and its advisers.

Trustee

A summary of the Trustee's responsibilities are to:

- ensure it has sufficient knowledge and understanding of climate change to fulfil its statutory and fiduciary obligations and is keeping this knowledge and understanding up to date;

- put in place effective climate governance arrangements and use those arrangements to help identify, assess and manage climate-related risks and opportunities for the Scheme;
- incorporate climate-related considerations into strategic decisions, investment beliefs, policies and the assessment of the strength of the Scheme's covenant; and
- ensure that the Scheme's actuarial, investment, covenant and legal advisers have clearly defined responsibilities in respect of climate change, that they have adequate expertise and resources, including time and staff, to carry these out, that they are taking adequate steps to identify and assess any climate-related risks and opportunities which are relevant to the matters on which they are advising, and that they are adequately prioritising climate-related risks.

Ultimately, the Trustee has responsibility for ensuring effective governance of all climate change risks and opportunities in relation to the Scheme, and it does not delegate any responsibility to any sub-committee.

The Trustee considers a range of different information about the climate change risks and opportunities faced by the Scheme to enable it to fulfil its responsibilities set out above.

Oversight activity

The Trustee maintains oversight of climate-related risks and opportunities by undertaking the following activities. At least annually, the Trustee reviews and (where appropriate) revises its governance arrangements, risk register items, investment beliefs, investment policies in relation to climate change and assessment of the competency and performance of its key advisers in relation to their climate responsibilities.

These assessments are often done both as part of wider ongoing assessment or on an informal basis. The investment adviser provides the Trustee with a summary of its climate competencies and is formally assessed by the Trustee annually through a climate-related objective as part of compliance with the Competition and Markets Authority's order for pension scheme trustees to set objectives for their investment consultants and assess performance against them. It sets out a business plan in relation to ESG and climate change matters for the following year, including assessing whether it is appropriate to carry out climate change scenario analysis ahead of the requirement to do it at least once every three years. It also reviews its investments managers' climate-related practices annually. Climate-related metrics and targets are reviewed annually but details are also provided in each quarterly performance report. These items will incorporate climate-related risks and opportunities as appropriate.

The Trustee reviewed the results of scenario analysis that illustrates how the Scheme's assets and liabilities might be affected under various climate change scenarios, along with commentary on the potential impacts for the sponsoring employer and the implications for the resilience of the Scheme's funding and investment strategies, for the first time in 2022 (see Strategy section 2). During the Scheme Year, the Trustee decided there was no need to update this analysis since the Scheme's position and the modelling behind the analysis hadn't changed materially. While there were some differences in the updated strategies compared to the Trustee's view of the long-term strategy in 2022, the conclusions from that review remained valid and the next climate scenario analysis review was commissioned for presentation in late 2025.

The Trustee carries out this analysis at least every three years and following any major changes in the Scheme's position or if it is appropriate to do so to ensure the Trustee has an up to date understanding of the climate change scenarios and their impacts. There will also be a review of the choice of short-, medium- and long-term time periods to be used when identifying climate-related risks and opportunities to the Scheme, as well as the choice of metrics to review regularly.

The Trustee will in future consider climate-related risks and opportunities whenever there is an actuarial valuation of the Scheme, a review of the Scheme's investment strategy or an assessment of the sponsoring employer's covenant.

The advisers' climate-related responsibilities are set out on a project-by-project basis and via the sharing of the Climate Governance Statement. A description of the Trustee's advisers and their roles is contained in the next section.

No other party or person makes Scheme-wide decisions.

Training for Trustees

During the Scheme Year, the Trustee agreed to undertake further training on stewardship, including systemic stewardship. This is expected to take place during the next Scheme Year and will build on the training previously received on how stewardship can be used to address climate-related risks.

Climate beliefs, Statement of Investment Principles and Policy on Sustainable Investing

The Trustee incorporates its beliefs and policies on climate-related risks into its Statement of Investment Principles ("SIP"), Policy on Sustainable Investing, and Net Zero Statement, which help to define the investment strategy for the Scheme.

Environmental, Social and Governance (ESG) Risk

The Trustee believes that ESG factors can have a financial impact on assets held over the time horizon of the Scheme but will have varying importance for different types of assets invested by the Scheme. The Trustee will give due consideration to ESG risks when making investment decisions.

The Trustee incorporates all financially material considerations into decisions on the selection, retention and realisation of investments through strategic asset allocation decisions and the appointment of investment managers, so far as possible.

The Trustee has delegated all day-to-day decisions about the investments that fall within each mandate, including the realisation of investments, to the relevant fund manager.

Stewardship

The Trustee set its stewardship priorities in February 2023, which include climate change, business ethics, corporate transparency and diversity, equity and inclusion. These priorities were communicated to the Scheme's fund managers in prior periods through the investment adviser, and form part of the ongoing engagement with managers.

Climate-related policies within the Policy on Sustainable Investing

Investment strategy: Environmental, social and governance issues (including climate change) are material financial issues for the Scheme and will influence the risk and return of the Scheme's investments over the long term. The Trustee considers that sustainable investments (including those aligned with a low carbon future, those with a neutral or positive impact on the environment, or those that create broader sustainability-related benefits) will outperform those that do not have regard for sustainability.

Investment process: Climate related and other ESG factors should be integrated, with other risks and opportunities, in its managers' investment processes and decisions.

Net zero target: It should set an appropriate target for the Scheme's assets to reach net zero greenhouse gas emissions, which may change over time, to manage the investment risk of the Schemes. It is a long-term investor in governments and companies across the world and there may be reasons for its target, milestones and approach to achieving net zero not to align with those of the sponsoring employer.

Investment mandate selection: The Trustee will consider specialist ESG investment approaches, including sustainable and positive impact strategies, where suitable and appropriate options are available.

Investment manager approaches: While the investment of the Scheme's assets is delegated to the appointed investment managers, the Trustee expects its investment managers to consider ESG, including climate change, factors as an integral part of their investment processes.

2. Other parties' and advisors' roles

Actuarial adviser

The Trustee's actuarial adviser is responsible, at the request of the Trustee, for advising on how climate-related risks and opportunities might affect the Scheme's funding position over various terms and the implications for the Scheme's funding strategy, long-term objective and journey plan. It is also required to provide input to assist the Trustee in incorporating climate change in its governance arrangements, risk register and communication with stakeholders (including, but not limited to, its TCFD reporting) as appropriate.

Investment adviser

The Trustee's investment adviser is responsible, at the request of the Trustee, for Scheme investment matters including the provision of training and other updates to the Trustee on relevant climate-related matters. It is responsible for helping the Trustee to formulate its investment beliefs in relation to climate change and reflecting these in the Scheme's investment policies and strategy, as well as advising on the inclusion of climate change in the Scheme's governance arrangements and risk register, working with the Trustee and its other advisers as appropriate.

At asset class level, the investment adviser is responsible for advising how climate-related risks and opportunities might affect the different asset classes in which the Scheme might invest over the different time horizons, and the implications for the Scheme's investment strategy and journey plan.

At fund level, the investment adviser is responsible for advising the Trustee on the appropriateness and effectiveness of the Scheme's investment managers' processes, expertise and resources for managing climate-related risks and opportunities, given the Trustee's investment objectives and beliefs, and engaging with the investment managers to improve their climate-related integration over time. It also assists the Trustee in incorporating climate change in its investment monitoring.

For the analysis feeding into these disclosures, the investment adviser is responsible for assisting the Trustee in identifying and monitoring suitable climate-related metrics and targets in relation to the Scheme's investments, including liaising with the Scheme's investment managers regarding provision of the metrics. It also leads on the preparation of the Trustee's TCFD reporting, and assists with other communication with stakeholders in relation to climate change, working with the Trustee and its other advisers as appropriate.

Covenant adviser

The Trustee's covenant adviser is responsible, at the request of the Trustee, for advising on how climate-related risks and opportunities might affect the employer covenant in the context of the Scheme's covenant reliance. It is also required to provide input to assist the Trustee in incorporating climate-related risks in its covenant monitoring framework.

Other parties / advisers reviewing this report

During the preparation of the TCFD report, a number of parties review and provide input to drafts of this report before it is finalised. These include the actuarial, audit, covenant and legal advisers, along with the Trustee's Governance, Administration and Communication working group, the Trustee Secretary and the sponsoring employer.

Information provided to the Trustee

On a quarterly basis, the Trustee receives analysis of holdings-level climate exposures through data on its portfolios' absolute carbon emissions, carbon footprint, net-zero alignment and the data quality provided by each of its managers as part of its regular investment reporting. The underlying climate data is updated every six months noting that typically it does not change notably quarter by quarter.

On an annual basis, the Trustee receives portfolio level analysis through a high-level overview of how the Scheme's investment managers approach climate issues. The investment adviser provides the Trustee with an overview of its climate competencies and feeds back on how it has satisfied the objectives set by the Trustee.

The Trustee uses the data and information to identify any significant misalignment between its beliefs and the management of its portfolios, as well as identifying potential areas of engagement with its investment managers. Its investment adviser highlights priority areas to address based on the materiality of exposure the Scheme has at the time of assessment, or is expected to have in future.

The Trustee also receives covenant monitoring updates on a biannual basis, which includes consideration of material covenant risks in the context of the Scheme's covenant reliance and the covenant strength. Going forward biannual covenant updates will include consideration of key covenant climate-related risks and opportunities, to the extent relevant sponsoring employer information is available.



Strategy

1. Identification and assessment of climate-related risks and opportunities relevant to the Scheme

The Trustee has selected the periods to 2026, 2030 and 2040 as suitable short, medium, and long-term time horizons for considering the climate-related risks and opportunities faced by the Scheme:

Time horizons	Year	Rationale
Short term	2026	At the time of setting the targets, 2026 was the date the Scheme was targeting reaching being fully funded on a low-risk basis, whereby reliance on the sponsoring employer is expected to be minimalised.
Medium term	2030	2030 is a commonly used staging post across governments and corporates. The Trustee has used the medium term as a target date for two interim climate targets to align with the Scheme's long-term net zero target. The interim targets cover the Scheme's investment exposure to entities with science-based decarbonisation targets and sets a target for the Scheme's fund managers in relation to their climate-related engagements.
Long term	2040	The Scheme has set a net zero target for 2040. This is also the point at which the majority of Scheme members will be pensioners.

The Scheme faces risks and opportunities from both the physical effects of climate change – for example, more frequent storms, rising temperatures and changing rainfall patterns – and from the effects of transitioning to a lower carbon economy to limit the extent of climate change – for example, government policies to restrict or discourage the use of fossil fuels, technological advances in renewable energy, and shifts in consumer demand towards “greener” products.

The Trustee has identified various specific climate-related risks and opportunities which could impact the Scheme's financial position, and monitors these through a climate monitoring section in a risk register, which covers investment, funding and covenant. The Trustee considers the likelihood and impact of these risks and opportunities over the short, medium and long-term time horizons outlined above.

Some examples of the issues identified during previous scheme years (with associated management actions agreed by the Trustee), are outlined below. During the Scheme Year substantial work took place to address some of the issues identified, which is summarised below the following table. Many other risks and opportunities were identified during the Scheme Year, ranging in levels of materiality (for example, risks remain where there is limited visibility over climate strategies within certain mandates where assets are expected to be held beyond the Scheme's net zero target date or risks associated with lack of visibility of climate exposures in some of the Scheme's investment mandates that are expected to be terminated within the short term or where the coverage is high but still less than 100%).

Time period	Key risks	Key opportunities	Agreed actions
Short-term (to 2026)	Exposure to climate-related investment risks may be highest while you retain a higher allocation to growth assets.	Consider de-risking towards a long-term lower risk portfolio in a more measured way rather than waiting to reach full funding.	As part of ongoing investment strategy discussions and the 2023 valuation, consider the pace of investment de-risking in the context of the Scheme's climate risk exposure. In particular, consider the option of investment de-risking sooner than had previously been discussed.
Medium-term (to 2030)	1) Market volatility could cause investment losses and increase time to reach long-term funding objective – especially if covenant also weakens. 2) Cost of longevity hedging may increase as insurers allow for climate-related risks in their pricing and reserving bases.	1) Climate aware funds and adjustments to existing IMAs could help protect against transition risks and provide exposure to transition opportunities. 2) An earlier longevity swap (or buy-in) transaction could provide greater protection from climate risks for members' benefits.	1) Consider adjustments to segregated credit IMAs to reduce climate risk and take advantage of climate solutions opportunities. Considering where trade-offs exist relative to current approach. Consider climate aware alternatives to existing mandates as part of ongoing strategy discussions to reduce medium term transition risk. 2) Consider the impact of climate on pricing as part of ongoing discussions regarding the potential to hedge longevity risk with an insurer.
Long-term (to 2040)	Cost of buy-out (should the long-term objective of the Scheme change from self-sufficiency) may increase.	Insurance transactions could provide greater protection from climate risks for members' benefits.	If agreed that buy-ins are an option in the future, anticipate the potential for volatility in pricing due to climate risks and consider this in any decision-making process.

The impacts of some of the example risks and opportunities shown above are visually represented in the output of the climate scenario analysis on pages 28-29.

Notable updates to the actions outlined above

During the Scheme Year, the Trustee began to implement the move towards the agreed long-term, low-risk, cashflow-matching strategy. As part of this, a significant proportion of the Scheme's liquid assets were consolidated into a long-term bond portfolio. The Trustee put in requests to sell positions in some illiquid assets, where possible, and made decisions to maintain other illiquid positions that align better with the long term cashflow matching strategy. The Scheme's synthetic equity exposure was previously assessed to be a weak point in the resilience of the funding and investment strategies to climate change. It had the potential to play out over the short term. The Trustee closed the position during the Scheme Year to remove the exposure.

As a result of the transition, the investment guidelines for the long-term bond portfolio were reviewed and updated to better align with the portfolio's cashflow-matching objectives and LDI requirements. Key changes include broader definitions of eligible debt instruments, the removal of explicit duration limits, increased limits on securitised assets, greater flexibility around credit and currency exposures, and updated sector and issuer concentration limits

The Trustee will continue to consider whether further asset allocations to investments that represent climate opportunities are available and suitable (given desired investment characteristics), as the strategy evolves.

Other notable actions during the Scheme Year

As part of its ongoing oversight, the Trustee reviewed the results of the 2024 Responsible Investment (RI) Survey conducted by its investment adviser. The survey assessed the sustainable investing performance and practices of the Scheme's fund managers, with a focus on their ability to support the Scheme's climate goals and manage sustainability-related risks. Key insights included:

- LDI and Long-term Bond Portfolio Manager: Sustainability guidelines were introduced to the long-term bond portfolio in January 2024 and updated again later in the year to support the long-term investment strategy. Through the annual assessment of how managers approach climate change, the Trustee will continue to explore and monitor how the incorporation of climate risk into credit analysis and risk ratings contributes to tangible outcomes of risk management and real-world impact. The manager's participation in climate-related policy advocacy was acknowledged positively. The Trustee is considering further engagement to explore these areas in more depth.

- Illiquid Credit Manager: It was observed that the assets in one of the Scheme's illiquid credit mandates were considered low priority for climate action by the manager, due to the classification of the underlying assets as low emitters. While this was an encouraging position, the Trustee's investment advisor sought greater transparency on the climate exposures of these private assets to allow improved oversight. Private market assets, in general, still provided less granular data than public assets.

Covenant risk identification and assessment

As part of the climate risk identification and assessment the Trustee considered the impact of climate-related risk and opportunities on the covenant, in the context of the Scheme's covenant reliance. Due to the nature of the sponsoring employer's operations, physical risks are expected to be more relevant than transition risk. Physical and transition risks could impact in the short, medium and long term but physical risks are likely to be more dominant over the longer-term and transition risks more dominant in the short and medium term.

The key covenant impacts on the sponsoring employer were identified as including:

- The requirement for significant investment over the next decade to mitigate drought and flooding risks, with potential for unforeseen investment to combat unforeseen climate events.
- Continued pressure on returns and efficiencies as a result of adverse impacts of climate change on income and costs.
- More stretching Ofwat compliance targets, which increase the risk of water supply interruptions, sewer flooding and pollution incidents.
- The potential for increased operating costs should policies to reduce carbon be more aggressive than anticipated. Whilst the Group intends to reduce its use of carbon by reducing emissions by 74% by 2030, carbon offsets may also be utilised for the remaining 26%.

Clearly, this may make it harder for the covenant to fund the Scheme's contributions under some climate scenarios although the impact of climate change on the Scheme's covenant strength is likely to be limited over the relatively short term during which the Scheme is expected to need deficit contributions in order to reach its objective of being fully funded on a low-risk basis in 2026. In fact, the Scheme became fully funded on a low-risk basis during 2024, which the Scheme remained close to through to the end of the Scheme Year.

During the Scheme Year the Trustee considered the sponsoring employer's progress on sustainability initiatives and level of urgency given to sustainability issues in general by inviting a representative to present an update.

2. Climate scenario analysis

Scenario analysis is a tool that helps stretch thinking beyond just the experiences of the past. The Trustee has used climate scenario analysis as a key tool for identifying, assessing and managing climate-related risks and opportunities. In particular, it has used the analysis to identify the time horizons over which the physical risks and transition risks could materialise. It has then considered what the possible impacts of climate change could be over each of these time horizons and whether its current funding and investment strategies are likely to be resilient against these risks (or whether it is able to take advantage of any opportunities).

The Trustee carried out climate scenario analysis in October 2022, based on the Scheme's financial position as at 31 March 2022, with the support of its actuarial and investment advisers, LCP, as well as input from the covenant adviser, EY.

During the year to 31 March 2025, the Trustee considered whether to update that analysis. However, it decided not to do so on the basis that:

- While there were some differences in the updated strategies compared to the Trustee's view of the long-term strategy in 2022, the conclusions from that review (set out below) remained valid and the Trustee agreed to begin the process to conduct the next climate scenario analysis review (due in late 2025);
- it did not see any material improvements in the data available;
- there had not been a significant change in the availability of new or improved scenarios or modelling capabilities or events that might reasonably be thought to impact key assumptions underlying the scenarios; and
- best practice across the industry had not changed materially since the first analysis for the Scheme.

The results of the October 2022 analysis are provided below. However, we include comments on the implications of the revised investment strategy agreed over the year to 31 March 2025.

Scenarios considered and why the Trustee chose them

As part of the October 2022 analysis the Trustee looked at three possible scenarios (more details on these scenarios are in Appendix 1):

Transition	Description	Why the Trustee chose it
Failed Transition	Global net zero carbon emissions not reached by 2050; only existing climate policies are implemented and temperatures rise significantly	To explore what could happen to the Scheme's finances if carbon emissions continue at current levels and this results in significant physical risks from changes in the global climate that disrupt economic activity.
Orderly Net Zero by 2050	Global net zero carbon emissions is achieved by 2050; rapid and effective climate action (including using carbon capture and storage), with smooth market reaction	To see how the Scheme's finances could play out if global net zero carbon emissions is achieved by 2050, meaning that the economy makes a material shift towards low carbon by 2030.
Disorderly Net Zero by 2050	Same policy, climate and emissions outcomes as the Orderly Net Zero scenario, but financial markets are initially slow to react and then react abruptly	To look at the risks and opportunities for the Scheme if global net zero carbon emissions is achieved by 2050, but financial markets are volatile as they adjust to a low carbon economy.

At the time, the Trustee acknowledged that many alternative plausible scenarios existed but found the above were a helpful set of scenarios to explore how climate change might affect the Scheme in the future.

To provide further insight, the Trustee also compared the outputs under each scenario to a "climate uninformed base case", which made no allowance for either changing physical or transition risks in future.

Modelling approach

The scenario analysis was based on a model developed by Ortec Finance and Cambridge Econometrics which projects climate scenarios year by year, over the next 40 years. The outputs were then applied to the Scheme's assets and liabilities by the Trustee's investment adviser. There were no gaps in the data used in the modelling – all assets and liabilities were included.

The model output was supported by in-depth narratives to help the Trustee's understanding of climate-related risks and opportunities. The results helped the Trustee to consider how resilient the funding and investment strategies are to climate-related risks.

The results were based on macro-economic data at 31 December 2021, calibrated to market conditions at 31 March 2022. The Trustee discussed how future planned changes to the investment strategies would change the analysis.

The modelling did not include the impacts of climate change on life expectancy. Instead the Trustee has considered these separately, as outlined in Appendix 1. The Trustee considered the potential effect on the sponsoring employer's covenant (see below) and was satisfied the conclusions were still valid.

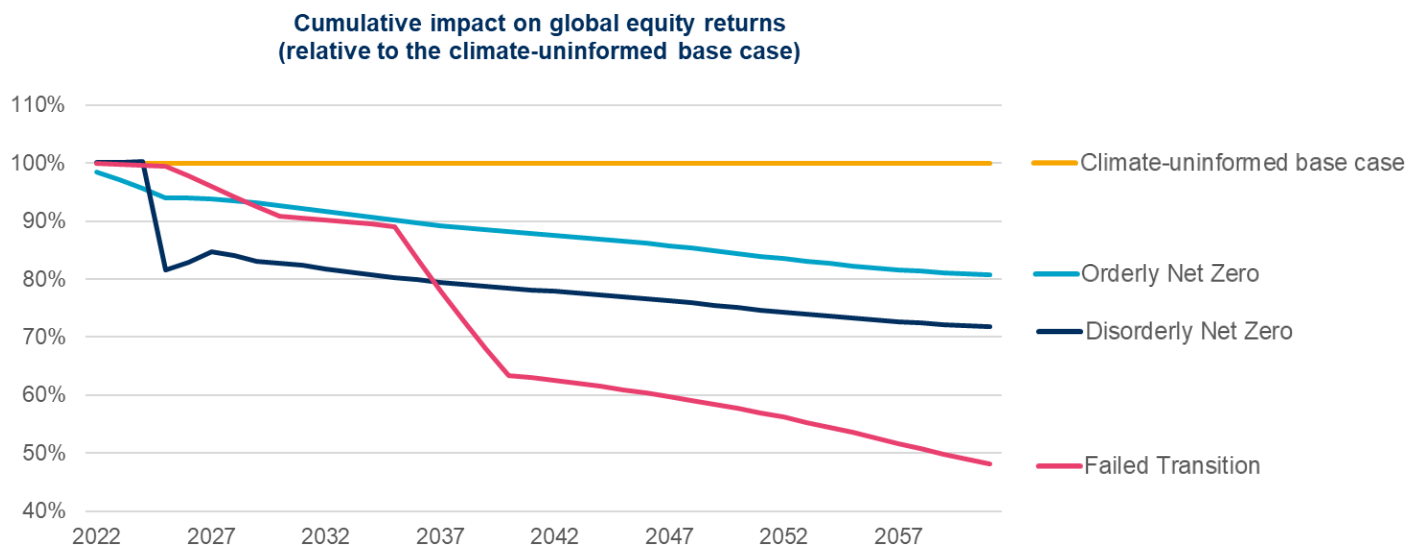
Modelling limitations

- Like most modelling of this type, the modelling does not allow for all potential climate-related impacts and therefore is quite likely to underestimate some climate-related risks. For example, tipping points (which could cause runaway physical climate impacts) are not modelled and no allowance is made for knock-on effects, such as climate-related migration and conflicts.
- In addition, the model presumes that the UK government and bank counterparties will remain solvent, thereby making no allowance for credit risk on government bonds and derivative exposures. However, in a scenario where global warming exceeds 4°C, this assumption may no longer be valid.
- Medians from Ortec Finance's model outputs are used to project forward assets and liabilities, which means the results reflect the model's "middle outcomes" for investment markets under the three scenarios. Allowing for market volatility would result in better or worse model outputs than shown. Investment markets may be more volatile in future as a result of physical and transition risks from climate change, and this is not illustrated in the modelling shown.

- Investment market impacts were modelled as the average projected impacts for each asset class. In practice, the Scheme's investments may not experience climate impacts in line with the market average.
- The asset and liability projections shown reflect the Scheme's current strategic journey plan. No allowance is made for changes that might be made to the funding or investment strategy as the climate pathways unfold, nor for action to be taken in response to the Scheme achieving its long-term funding target.
- The timing and amount of benefit payments is uncertain, and cashflows from the Scheme's assets may not match the benefits as closely as assumed.

Potential impacts on global equity returns under each scenario

These scenarios show that equity markets could be significantly impacted by climate change, as shown in the chart below, with lesser but still noticeable impacts in bond markets. All three scenarios envisage, on average, lower investment returns and these result in a worse DB funding position.



Source: Ortec Finance.
Impacts shown are
medians, based on
financial conditions as
at 31 December 2021

Potential impacts on the Scheme's financial position under each scenario

Over the long-term, and particularly beyond the time horizon modelled, the largest effects would be felt under the Failed Transition scenario. On the face of it, the results above suggest that the Scheme is resilient in this scenario (and even more so under the other two scenarios). This is partly because in the modelling the Scheme is assumed to reach its low-risk long-term investment strategy by 2026, after which it has low exposure to growth assets such as equities which are expected to be most severely affected by climate change.

Moreover, the Scheme invests in a way that is designed to make it fairly immune to changes in interest rates and inflation in normal circumstances, which significantly reduces the volatility of its funding position. However, under climate scenarios with major economic disruption – such as the later years of the Failed Transition scenario – the Scheme's interest rate and inflation protection may break down, leaving it more exposed to climate risks. The median modelled outcomes do not illustrate this possibility.

The Trustee will carry out scenario analysis at least every three years and check annually if the review should be carried out sooner. The results of the analysis are examined in conjunction with the outlook for the sponsoring employer (and scenario analysis, if available) in order to provide a more integrated view of the funding risk the Scheme is exposed to.

Use of and interpretation of scenario analysis results

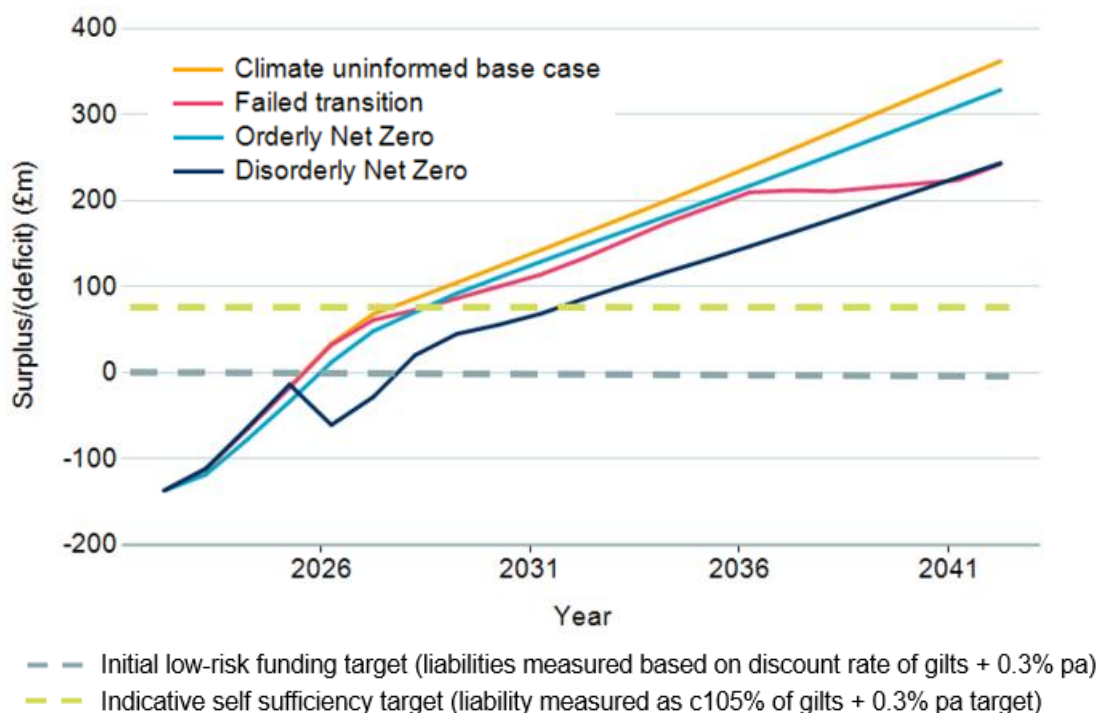
At the time the 2022 analysis was carried out, the Trustee's funding and investment strategy was based on de-risking to a low-risk investment strategy in 2026, albeit the Trustee was considering whether de-risking towards the long-term strategy could be accelerated. As such, the climate scenario analysis was done for two potential strategies to assess how climate change might impact the funding position under alternative de-risking strategies – full de-risking in 2026 and more phased de-risking over the period to 2026.

Climate scenario analysis output

The two charts below illustrate the projected funding position of the Scheme in each of the three scenarios considered, as well as in the “climate uninformed base scenario”.

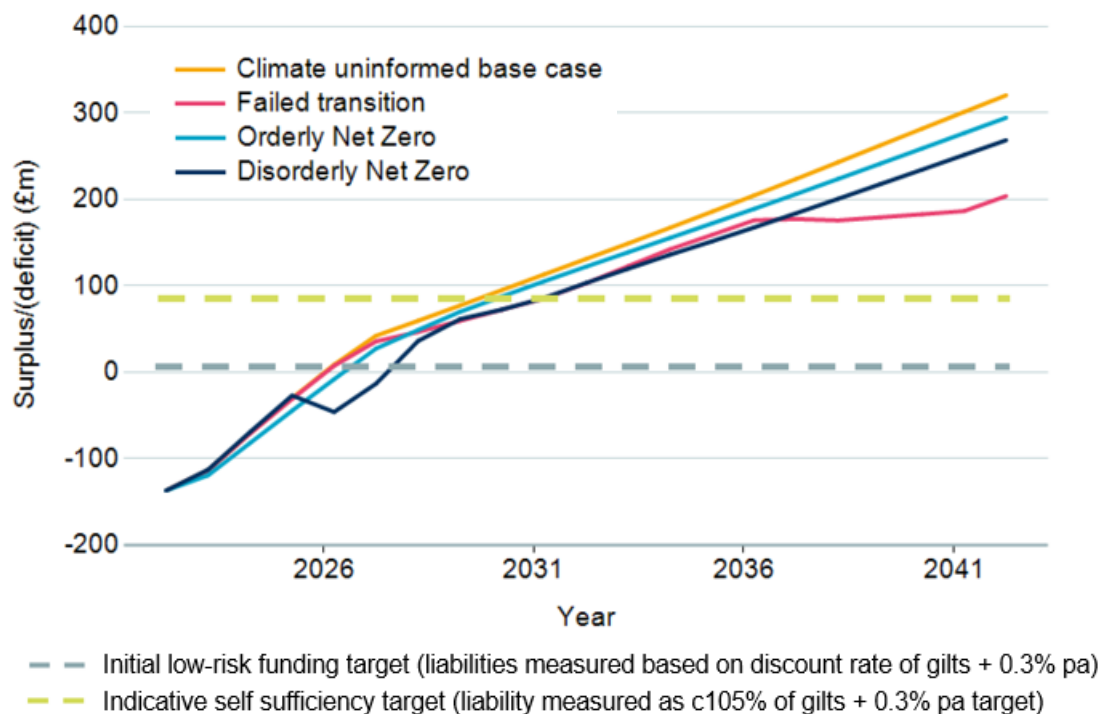
Full de-risking in 2026

- Under the Paris Orderly Transition (bright blue line), there is minimal impact to the funding position as the costs and benefits of the transition are modelled as broadly cancelling out.
- Under the Paris Disorderly Transition (dark blue line), there is market volatility as the market reprices in the mid 2020s, and there is a significant impact on the funding position (albeit that the Scheme’s short term funding target is pushed out by only about 2 years as the investment strategy has already largely de-risked away from the asset classes that are expected to be most exposed to climate risk).
- Under the Failed Transition (pink line), there would be a material impact on the funding position to that shown in the Paris Disorderly Transition over the long term, with the majority of the impact coming through after about 2035.



Phased de-risking over the period to 2026

- Under the Paris Orderly Transition (bright blue line), there is, again, minimal impact to the funding position as the costs and benefits of the transition are modelled as broadly cancelling out.
- Under the Paris Disorderly Transition (dark blue line), there is market volatility as the market reprices in the mid 2020s, and the impact on the funding position is greater than in the Paris Orderly Transition scenario, but it is less severe than in the case where de-risking is delayed until 2026 (as, although the investment strategy has already largely de-risked away from the asset classes that are expected to be most exposed to climate risk, it de-risks further before the modelled market volatility hits).
- Under the Failed Transition (pink line), again, over the long term the impact is most severe of the three scenarios. There would be a significant impact on the funding position (the same as in the case where de-risking is delayed until 2026 because the main impact occurs after 2035).



A funding strategy with phased de-risking was found to be more resilient to climate impacts. Delaying the de-risking until 2026 left the Scheme open to greater risk over all time horizons under the scenario of a disorderly transition to net zero, despite achieving higher returns through to the point of the market adjustment.

In terms of the scenarios, the Scheme's funding position was most negatively impacted under the failed transition scenario over the long term. However, over the short term the funding position was significantly impacted under the disorderly net zero transition, with a greater impact under the funding strategy where de-risking was delayed. Over the medium and long term the Scheme was projected to be in surplus and resilient to the risk of climate impacts creating a deficit.

For the delayed de-risking strategy, it is worth noting that the deterioration in the funding position over the short term in the disorderly net zero scenario is driven by widespread falls across many asset classes in which the Scheme was modelled as being invested – including equities, property, infrastructure and high yield debt. The impact on liabilities was modelled to be limited in the short-term under the various scenarios given the assumed differences in real yields are relatively small and the Scheme is significantly hedged.

The investment strategy of the phased de-risking approach had lower exposure to higher-risk asset classes (such as equities) than the investment strategy that delayed de-risking until 2026. Due to the lower exposure to higher-risk asset classes, the investment strategy of the phased de-risking approach was found to be more resilient than the investment strategy that delayed de-risking until 2026. This analysis was a factor in the Trustee and Company decision made during the Scheme Year to implement de-risking to the long-term low-risk strategy earlier than previously planned (with the de-risking predominantly completed by 31 March 2025 rather than 2026 as planned).

Mitigation techniques other than accelerated de-risking, such as investment in climate-aware funds or climate opportunities, were considered and subsequently fed into exercises that sought to understand the impact of updating the guidelines in some of the Scheme's segregated mandates.

More detailed analysis from the climate scenario analysis on the financial impacts for the Scheme, along with comments on the impact of climate change on life expectancy, are in Appendix 1.

Climate scenario analysis applicable to the covenant

During the scenario analysis exercise, the Trustee considered the impacts on the funding position in the context of the sponsoring employer's ability to fund the Scheme under consistent scenarios. This was based on qualitative information relating to climate-related risks and opportunities.

The Scheme's covenant adviser identified and assessed the risks faced by the sponsoring employer, as far as able, and based on the prevailing strength of the covenant, it was considered that the sponsoring employer could support additional contributions of the quantum required under the projected shortfalls in funding position in the context of the relatively short time horizon expected to close the shortfall. This was despite the climate related risks that are already impacting the sponsoring employer's returns and efficiencies and the future physical and transition risks that are likely to play out.

The Trustee understands that physical climate risks are more relevant to the covenant than transition risks. And that physical impacts, which are already playing out, are expected to increase with time. Physical impact of extreme weather events may lead to water shortages, sewer flooding, flooding of sites and adverse impacts on natural capital. Transition risks include the impact of policies to reduce carbon emissions and mitigate climate change, which may increase operational costs.

Based on qualitative information provided by the sponsoring employer, the impact of climate-related risks on the Scheme's covenant strength was assessed to be limited over the short term during which the Scheme is expected to need contributions in order to reach its objective of being fully funded on a low-risk basis in 2026.

Looking beyond that short-term period, the risks identified may potentially make it harder, under some climate scenarios, for the sponsoring employer to fund any additional contribution requirements.

However, ultimately, the Scheme's reliance on the covenant should reduce once the revised low-risk investment strategy is implemented and the Scheme is fully funded on a low-risk basis (which was broadly the case at the end of the Scheme Year given the de-risking that had taken place and the improved funding position).



Risk management

1. Processes for identifying and assessing climate-related risks

The Trustee has established various processes to identify, assess and manage climate-related risks and opportunities in relation to the Scheme, and has taken steps to integrate these within the overall risk management of the Scheme. Some of the key measures in place are outlined below.

- The Trustee's investment adviser provides a business plan to the Trustee for consideration on an annual basis. The business plan includes matters on sustainable investment (including processes required under TCFD reporting requirements) for consideration.
- The climate scenario analysis was undertaken as a holistic risk management exercise, involving the Trustee's investment, funding and covenant advisers (within input from the sponsoring employer).
- The Trustee has included climate-related risks in its risk register, while considering its long-term investment and funding strategies.
- The Trustee considers the Scheme's assets' exposure to climate risks on a quarterly basis using selected climate-related metrics that are updated every six months and included in quarterly reporting.
- The Trustee monitors its fund managers' sustainability practices at least annually, supported by sustainable investment assessments from the Trustee's investment advisers.
- The Trustee receives an annual update from a representative of the sponsoring employer on its progress in addressing climate exposures. The Trustee uses this information to help assess whether to commission further climate scenario analysis from its covenant adviser.

2. Tools for identifying and assessing climate-related risks and opportunities

Climate-related risks and opportunities are identified and assessed over the three time horizons using a range of tools and processes that are applied as appropriate over time. These include climate scenario analysis, manager research and the collection of climate metrics data. The Trustee uses these tools to help analyse and identify climate-related risks and opportunities related to macro-economic exposure, asset classes, manager skill and processes and individual holdings, respectively.

The tools and processes in place help the Trustee to consider issues such as how to identify the most material risks to the Scheme and how to identify key risks to focus on. These key risks are then used to help inform investment and actuarial decisions. The Trustee ensures climate related risks are monitored and managed through the reporting and discussions that accompany these processes (and any corresponding actions) and intends to include some of the key climate risks in a risk register. In addition to undertaking the above activities, the Trustee previously communicated its stewardship priorities to the Scheme's investment managers. One of those stewardship priorities is to encourage action to limit climate change. The Trustee believes that good stewardship practices, including voting and engagement

activities, enhance asset owner value over the long term. It delegates responsibility for voting and engaging with portfolio companies to its investment managers and it expects its managers to vote appropriately and in line with the belief that climate change is a material risk to the Scheme's assets.

Covenant risk monitoring and management

The Trustee will monitor the covenant's approach to climate change through regular covenant reviews, covenant monitoring updates and discussions with the sponsoring employers. Whilst the sponsoring employer is taking action to mitigate both physical and transition climate risks, it is exposed to potential significant costs over short and longer terms. When assessing the sponsoring employers' covenant as part of the triennial covenant assessment and when monitoring the covenant via the Trustee's covenant monitoring framework, the Trustee will ensure that climate risk has a specific focus. This will enable the Trustee to determine whether the sponsoring employers' risks relating to climate change could impact the level of support available, especially when this support is most needed.



Metrics and targets

Metrics and targets

1. Metrics

The Trustee has chosen four climate-related metrics to help it monitor climate-related risks and opportunities to the Scheme. These are listed and reported below (as far as the Trustee was able to obtain the data).

Metric	High-level methodology
Absolute emissions: Total greenhouse gas emissions	The sum of each company's most recent reported or estimated greenhouse gas emissions attributable to the Scheme's investment in the company, where data is available. Emissions are attributed evenly across equity and debt investors. Reported in tonnes of CO ₂ equivalent. This methodology was chosen because it is in line with the statutory guidance.
Emissions intensity: Carbon footprint	The total greenhouse gas emissions described above, divided by the value of the invested portfolio in £m, adjusted for data availability. Emissions are attributed evenly across equity and debt investors. Reported in tonnes of CO ₂ equivalent per £1m invested. This methodology was chosen because it is in line with the statutory guidance.
Portfolio alignment: Science-based targets (SBT)	The proportion of the portfolio by weight of holdings with science-based targets to reduce their greenhouse gas emissions, demonstrated by a target validated by the Science Based Targets initiative (SBTi) ¹ or equivalent. This measures the extent to which the Scheme's investments are aligned to the Paris Agreement goal of limiting global average temperature rises to 1.5°C. Reported in percentage terms. The Trustee chose this "binary target" measure because it is the simplest and most robust of the various portfolio alignment metrics available.
Additional climate change metric: Data quality	The proportion of the portfolio for which greenhouse gas emissions data is verified, reported, estimated or unavailable. "Verified" emissions refers to data reported by the emitting company and verified by a third party. "Reported" emissions are reported by the emitting company but not verified. "Estimated" emissions are used where the company has not publicly reported its emissions and estimates are used instead. Estimates are calculated using an undefined method (examples include using an industry average or using company-specific models). This approach was chosen because it is in line with the statutory guidance.

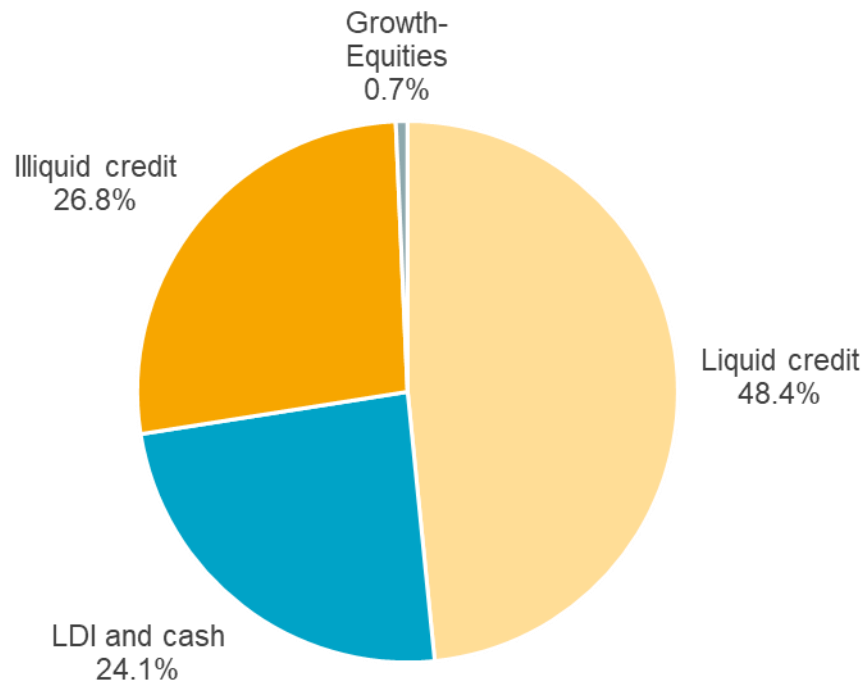
The Trustee chose to report these metrics as they are ones recommended in the DWP's statutory guidance.

¹ Science-Based Targets initiative (see Glossary in Appendix 2).

Metrics and targets

The data has been calculated using portfolio holdings as at 30 September 2024, using the most recent data available from Scheme's investment managers. The chart below shows the asset allocation of the Scheme's assets as at 30 September 2024.

Asset allocation as at 30 September 2024



In the above chart the mark-to-market value of the equity portfolio is represented. The Scheme had notional equity exposure, which was used for data collection, of around 8.5% of total assets as at 30 September 2024.

Metrics and targets

Metrics collected

The tables below set out the data the Trustee was able to collect from its investment managers during the Scheme Year on each of the four chosen metrics. The metrics were collected as at 30 September, which is half way through the Scheme year and was the intended date of metrics collection for its first TCFD report. Around 30 September 2022, however, there was high market volatility due to the gilts crisis caused by the UK government's mini-budget so the metrics collection was done as at 31 December 2022 instead for that year.

Last year's metrics are shown to allow the trend over time to be assessed. However, where data coverage was previously incomplete, the changes in disclosed emissions may be due to more data becoming available and may not necessarily be caused by a real-world change in emissions.

The underlying asset class for the LDI (or Liability Driven Investment) portfolio is UK government bonds. The emissions for the LDI portfolio are calculated as a proportion of total UK emissions, likewise carbon footprint is calculated as a proportion of UK government bonds in issuance. As such the data is not directly comparable to other asset classes. And as a result, there are limited mitigating actions that the LDI fund manager can take to reduce the emissions on the LDI portfolio.

Metrics and targets

Metric 1 (Absolute emissions)

	Portfolio	Date of data	30 Sep 2024 (£m)
Growth - Equities	Manager 1	-	8
Illiquid Credit	Manager 2	30 Jun 24	65
	Manager 3	30 Sep 23	3
	Manager 4	31 Dec 23	18
	Manager 5	-	76
	Manager 6	31 Dec 23	3
	Manager 7	31 Dec 21	44
	Manager 8	31 Dec 23	69
Liquid Credit	Manager 9	30 Sep 24	362
LDI and Cash	Manager 10	30 Sep 24	215
	Manager 11	31 Dec 23	20

Metric 1 - Absolute emissions						
Scope 1&2	Scope 1&2 (previous)	Difference	Scope 3	Scope 3 (previous)	Difference	Source
(Tons of CO ₂ e)						
-	-	-	-	-	-	-
1,685	1,643	42	63	47	16	Manager
251	501	-250	-	-	-	Manager
843	2,645	-1,803	2,882	3,260	-378	Manager
-	-	-	-	-	-	-
319	289	30	2,128	1,749	380	Manager
47	-	-	695	-	-	-
117	22	95	0	0	0	LCP estimate
14,693	6,371	8,322	88,631	58,058	30,573	Manager
129,771	208,272	-78,501	-	-	-	Manager
10	-	-	66	-	-	Manager

Figures relate only to the assets for which data is available. Total emissions are for the proportion of the Scheme's assets within a fund and not for the whole pooled fund (where applicable).

Source: investment managers. LCP is the Trustee's investment adviser. Definitions are as below unless stated otherwise.

Carbon emissions: greenhouse gas emissions associated with the issuer, expressed in tons of CO₂e for Scope 1 & 2 emissions and Scope 3 emissions.

Carbon footprint: carbon emissions / money invested in the fund (tCO₂e per £1m invested = the sum of for all issuers [issuer value in fund / issuer EVIC * issuer Scope 1 & 2 (or Scope 3) greenhouse gas emissions]. EVIC is enterprise value including cash.

The "Growth – Equities" exposure as at 30 September 2024 was £88m (the exposure was through derivatives).

		Coverage				
	Portfolio	Scope 1&2	Scope 1&2 (previous)	Difference	Scope 3	Scope 3 (previous)
Growth - Equities	Manager 1	-	-	-	-	-
Illiquid Credit	Manager 2	55%	56%	-2%	7%	2%
	Manager 3	100%	100%	0%	-	-
	Manager 4	100%	100%	0%	100%	100%
	Manager 5	-	-	-	-	-
	Manager 6	100%	86%	14%	100%	86%
	Manager 7	41%	-	0%	30%	-
	Manager 8	73%	16%	57%	47%	16%
Liquid Credit	Manager 9	77%	91%	-14%	77%	88%
LDI and Cash	Manager 10	100%	100%	0%	-	-
	Manager 11	70%	-	70%	70%	-

Metrics and targets

Metric 2 (Carbon footprint)

	Portfolio	Date of data	30 Sep 2024 (£m)
Growth - Equities	Manager 1	-	8
Illiquid Credit	Manager 2	30 Jun 24	65
	Manager 3	30 Sep 23	3
	Manager 4	31 Dec 23	18
	Manager 5	-	76
	Manager 6	31 Dec 23	3
	Manager 7	31 Dec 21	44
	Manager 8	31 Dec 23	69
Liquid Credit	Manager 9	30 Sep 24	362
LDI and Cash	Manager 10	30 Sep 24	215
	Manager 11	31 Dec 23	20

Metric 2 - Carbon footprint						
Scope 1&2	Scope 1&2 (previous)	Difference	Scope 3	Scope 3 (previous)	Difference	Source
(Tons of CO ₂ e per £1m)						
-	-	-	-	-	-	-
49	43	5	14	34	-19	LCP estimate
50	39	11	-	-	-	Manager
36	86	-50	122	106	16	LCP estimate
-	-	-	-	-	-	-
57	38	19	383	232	151	LCP estimate
2	-	-	44	-	-	Manager
2	2	0	0	0	0	LCP estimate
53	52	1	318	488	-170	LCP estimate
168	198	-29	-	-	-	Manager
2	-	-	10	-	-	Manager

Figures relate only to the assets for which data is available. Total emissions are for the proportion of the Scheme's assets within a fund and not for the whole pooled fund (where applicable).

Source: investment managers. LCP is the Trustee's investment adviser. Definitions are as below unless stated otherwise.

Carbon emissions: greenhouse gas emissions associated with the issuer, expressed in tons of CO₂e for Scope 1 & 2 emissions and Scope 3 emissions.

Carbon footprint: carbon emissions / money invested in the fund (tCO₂e per £1m invested = the sum of for all issuers [issuer value in fund / issuer EVIC * issuer Scope 1 & 2 (or Scope 3) greenhouse gas emissions]). EVIC is enterprise value including cash.

The "Growth – Equities" exposure as at 30 September 2024 was £88m (the exposure was through derivatives).

		Coverage					
		Scope 1&2	Scope 1&2 (previous)	Difference	Scope 3	Scope 3 (previous)	Difference
Portfolio							
Growth - Equities	Manager 1	-	-	-	-	-	-
Illiquid Credit	Manager 2	55%	56%	-2%	7%	2%	5%
	Manager 3	100%	100%	0%	-	-	-
	Manager 4	100%	100%	0%	100%	100%	0%
	Manager 5	-	-	-	-	-	-
	Manager 6	100%	86%	14%	100%	86%	14%
	Manager 7	41%	-	0%	30%	-	0%
	Manager 8	73%	16%	57%	47%	16%	31%
Liquid Credit	Manager 9	77%	91%	-14%	77%	88%	-11%
LDI and Cash	Manager 10	100%	100%	0%	-	-	-
	Manager 11	70%	-	70%	70%	-	70%

Metrics and targets

Metric 3 (Portfolio alignment)

		Date of data	30 Sep 2024 (£m)
Growth - Equities	Manager 1	-	8
	Manager 2	30 Jun 24	65
	Manager 3	30 Sep 23	3
	Manager 4	31 Dec 23	18
Illiquid Credit	Manager 5	-	76
	Manager 6	31 Dec 23	3
	Manager 7	31 Dec 21	44
	Manager 8	31 Dec 23	69
Liquid Credit	Manager 9	30 Sep 24	362
LDI and Cash	Manager 10	30 Sep 24	215
	Manager 11	31 Dec 23	20

Metric 3 - Portfolio Alignment			
% of portfolio	% of portfolio (previous)	Difference	Definition
-	-	-	
-	-	-	
-	-	-	
-	-	-	
20.0%	3.5%	16.5%	Net zero commitment and / or science-based target
-	-	-	
-	-	-	
33.4%	32.8%	0.6%	Validation by Science-based Targets initiative
100.0%	100.0%	0.0%	UK government's 2050 net zero target
-	-	-	

Source: investment managers

The "Growth – Equities" exposure as at 30 September 2024 was £88m (the exposure was through derivatives).

Note: The UK has a net zero by 2050 target written into law, with carbon budgets based on advice from the independent Committee on Climate Change, so UK government bond exposure has been treated as having a credible science-based target.

		Date of data	30 Sep 2024 (£m)
Growth - Equities	Manager 1	-	8
	Manager 2	30 Jun 24	65
	Manager 3	30 Sep 23	3
	Manager 4	31 Dec 23	18
Illiquid Credit	Manager 5	-	76
	Manager 6	31 Dec 23	3
	Manager 7	31 Dec 21	44
	Manager 8	31 Dec 23	69
Liquid Credit	Manager 9	30 Sep 24	362
LDI and Cash	Manager 10	30 Sep 24	215
	Manager 11	31 Dec 23	20

Coverage		
Scope 1&2	Scope 1&2 (previous)	Difference
-	-	-
55%	56%	-2%
100%	100%	0%
100%	100%	0%
-	-	-
100%	86%	14%
41%	-	0%
73%	16%	57%
77%	91%	-14%
100%	100%	0%
70%	-	70%

Metrics and targets

Metric 4 (Data quality)

				Coverage			Metric 4 - Data quality								
				Scope 1&2	Scope 1&2 (previous)	Difference	Scope 1&2			Scope 1&2 (previous)			Difference		
	Portfolio	Date of data	30 Sep 2024 (£m)				Reported	Estimated	No data	Reported	Estimated	No data	Reported	Estimated	No data
Growth - Equities	Manager 1	-	8	-	-	-	-	-	100%	-	-	100%	-	-	0%
	Manager 2	30 Jun 24	65	55%	56%	-2%	51%	4%	45%	56%	0%	44%	-6%	4%	2%
	Manager 3	30 Sep 23	3	100%	100%	0%	0%	100%	0%	0%	100%	0%	0%	0%	0%
	Manager 4	31 Dec 23	18	100%	100%	0%	15%	85%	0%	15%	85%	0%	0%	0%	0%
	Manager 5	-	76	-	-	-	-	-	100%	-	-	100%	-	-	0%
	Manager 6	31 Dec 23	3	100%	86%	14%	60%	40%	0%	48%	38%	14%	12%	2%	-14%
	Manager 7	31 Dec 21	44	41%	-	0%	39%	2%	59%	-	-	100%	-	-	-
	Manager 8	31 Dec 23	69	73%	16%	57%	73%	0%	27%	16%	0%	84%	57%	0%	-57%
Liquid Credit	Manager 9	30 Sep 24	362	77%	91%	-14%	68%	9%	23%	71%	19%	10%	-3%	-10%	13%
LDI and Cash	Manager 10	30 Sep 24	215	100%	100%	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%
	Manager 11	31 Dec 23	20	70%	-	70%	-	70%	30%	-	-	100%	-	70%	-70%

				Coverage			Metric 4 - Data quality								
				Scope 3	Scope 3 (previous)	Difference	Scope 3			Scope 3 (previous)			Difference		
	Portfolio	Date of data	30 Sep 2024 (£m)				Reported	Estimated	No data	Reported	Estimated	No data	Reported	Estimated	No data
Growth - Equities	Manager 1	-	8	-	-	-	-	-	100%	-	-	100%	-	-	0%
	Manager 2	30 Jun 24	65	7%	2%	5%	3%	4%	93%	2%	0%	98%	1%	4%	-5%
	Manager 3	30 Sep 23	3	-	-	-	-	-	100%	-	-	100%	-	-	0%
	Manager 4	31 Dec 23	18	100%	100%	0%	25%	75%	0%	5%	95%	0%	19%	-19%	0%
	Manager 5	-	76	-	-	-	-	-	100%	-	-	100%	-	-	0%
	Manager 6	31 Dec 23	3	100%	86%	14%	30%	70%	0%	31%	55%	14%	-1%	15%	-14%
	Manager 7	31 Dec 21	44	30%	-	0%	28%	2%	70%	-	-	-	-	-	-
	Manager 8	31 Dec 23	69	47%	16%	31%	47%	0%	53%	16%	0%	84%	31%	0%	-31%
Liquid Credit	Manager 9	30 Sep 24	362	77%	88%	-11%	0%	77%	23%	0%	88%	12%	0%	-11%	11%
LDI and Cash	Manager 10	30 Sep 24	215	-	-	-	-	-	100%	-	-	100%	-	-	0%
	Manager 11	31 Dec 23	20	70%	-	70%	-	70%	30%	-	-	100%	-	70%	-70%

Source: investment managers

The "Growth – Equities" exposure as at 30 September 2024 was £88m (the exposure was through derivatives).

See page 36 for a high-level explanation of the methodology to determine data quality.

Metrics and targets

Data gaps

The Trustee has been unable to obtain climate-related data from all of its fund managers. This has prevented calculation of certain metrics and identification of some potential impacts.

The main gaps in the data provided by the Scheme's investment managers relate to the illiquid credit holdings, the securitised assets (e.g. asset-backed securities) within the liquid credit mandate, and synthetic equity holdings. This is in part because climate data is generally lagging in private markets investments and because methodologies are still being determined with respect to derivatives. There are a number of factors behind this.

- **Illiquid credit** – while coverage improved compared to last year, some illiquid credit fund managers were still not able to provide metrics data in the required format and units. Of those that did, there remained data gaps in some of those portfolios. This is due to a number of reasons such as:
 - The lower disclosure requirements on private market companies;
 - Companies in the portfolio that are mid-sized and do not have the same resources as larger companies;

- Responsible investment practices of private markets fund managers have generally lagged fund managers with public market strategies;
- Direct lending fund managers often have a holding period of just a few years so have not previously considered climate issues as being material risks within the timeframe of the holdings;
- Calculation methodologies have not been developed for some asset classes; and
- Climate disclosures in the US generally lag those in Europe.

Some of these reasons apply directly to one or more of the Scheme's illiquid credit fund managers and others are based on research by the Trustee's investment adviser into the wider challenges for this asset class.

The Trustee's investment adviser continues to engage with the Scheme's illiquid credit fund managers to determine their plans to close these gaps. If any of the fund managers' plans are considered inadequate the Trustee will directly contact the fund manager with respect to reporting or estimating data in sectors with a higher level of climate risk. It is worth noting that some of the Scheme's illiquid credit managers have made concerted efforts already to close these data gaps through estimation tools.

Metrics and targets

- **Liquid credit** – As part of the transition to the long-term investment strategy, the Scheme significantly increased its allocation to the long-term bond portfolio during the Scheme Year, selling out of a number of other mandates and transferring the proceeds to this portfolio. This long-term bond portfolio has climate data gaps, which are attributable to several factors, including:

- Some smaller or lower-grade investees in the portfolio do not have the same resources as larger companies;
- Some borrowers that feature in portfolios are in industries that have lagged on climate exposures (e.g. universities, housing associations); and

- The increased allocation to securitised assets (e.g. asset-backed securities) which are more complex and less transparent in terms of measurable climate data. As of January 2025, the manager was in the advanced stages of expanding carbon reporting to cover a subsector of the asset backed securities, with further developments expected across other sectors. The Trustee intends to monitor progress on these developments in the next Scheme Year to assess improvements in data availability and climate alignment.

- **Synthetic equity (“Growth – Equities”)** – the Scheme’s synthetic equity holding is designed to achieve exposure to the equity market but with a reduced level of volatility. It achieves this using derivatives to create ‘caps’ and ‘collars’ that limit volatility. There is no consensus methodology for reporting emissions on derivative contracts and as such no data has been reported for this holding. The Trustee terminated this mandate in January 2025.

The Trustee’s investment adviser is encouraging the fund manager of the long-term bond portfolio to use estimation where data is not available. The manager is in the process of developing proxy data to improve coverage for certain holdings; however, it is unlikely that comprehensive information will be available for all of the securitised assets in the portfolio.

The Trustee made the decision that the residual assets of the Hartlepool Section (i.e. those assets not used to purchase annuity contracts for members, worth c.£1m at March 2023) would not be considered for the purposes of the analysis contained within these climate disclosures as it would have been disproportionate in terms of time and cost to do so.

Metrics and targets

Commentary on the climate change metrics

The Trustee uses the metrics collected in its identification and assessment of climate-related risks and opportunities. This more granular assessment complements the macro-level climate scenario analysis described on p23-31 and in appendix 1, enabling the Trustee to focus its climate risk management on the areas of the portfolio which are expected to be most exposed to climate change.

The Trustee considered the climate-related metrics collected for each of the portfolios, with the following highlights:

- **Illiquid credit** – Several of the Scheme's illiquid credit mandates were in run-off. One mandate was due to be split across two new standalone property mandates. Another mandate was expected to remain a part of the portfolio over the long term. For that mandate emissions data coverage had improved significantly. Further, the manager had categorised the five underlying assets as "low emitters".

The managers of the three smaller mandates that were nearing maturity achieved significantly higher data coverage, particularly for Scope 1 and 2 emissions, and in one case, also for Scope 3.

Despite this improved transparency, the collection of science-based targets remained minimal across the seven portfolios, with only one reporting a small exposure, providing no clear view of potential future emissions reductions. Additionally, although coverage improved, these mandates now report higher overall carbon footprints.

- **Liquid credit** – the liquid credit mandate is a material and growing component of the Scheme's assets, expected to be in place through the long-term. The SBT exposure remains low and could be a concern if there were any high emitters in the portfolio that did not have plans in place to decarbonise. However, the portfolio manager follows guidelines that discourage exposure to the highest emitters. The portfolio's climate performance was slightly positive, with the Scope 1&2 carbon footprint decreasing slightly while the SBT exposure increased slightly compared to the previous year. The investment adviser is actively engaging with the manager to support enhancements to climate reporting.

Metrics and targets

- **LDI and cash** – the LDI holding is exposure to UK government bonds and is an allocation driven by the Scheme's matching objectives. As such emissions are not a good indication of climate risk exposure for the LDI. While climate-related factors are less important considerations for a mandate with such an objective, they are not something that can be ignored. The UK government's climate change policies will have an important economic influence on the Scheme and, encouragingly, the footprint decreased over the period since the last reported numbers. The UK government exposure is said to have a science based target due to its 2050 net zero target, which is set in law – this assessment will be kept under review, though, as the independent Climate Change Committee has assessed government actions and policy as being insufficient to meet this target.

Additionally, the Scheme has some exposure to climate-related factors through the counterparties in the collateral pool, although data is limited in this respect.

- **Synthetic equities** – The lack of data for this exposure did not need to be addressed by the Trustee as the position had been closed by the time the data had been reported.

Metrics and targets

2. Target and progress against it

The Trustee has set a target against the data quality metric – by 31 December 2026, which aims to increase the emissions data quality provided by fund managers. There had been good progress by 30 September 2024 in comparison to the reference (or baseline) date. Progress is shown below, for data quality for assets within scope.

Data quality	Coverage / Assets in scope	Initial assessment Reference date (or baseline) 31 December 2022	Current progress 30 September 2024	Target 31 December 2026
Reported emissions	• Illiquid Credit • Liquid Credit	22.5%	55%	61%
Estimated emissions		14.3%	9%	39%

This target was chosen in 2022 due to the low coverage and quality of data available at the time. Following discussion with its adviser, the Trustee ultimately made the decision that an emissions-based or alignment-based objective may be more useful as coverage improves. While data coverage is low and quality is poor, the Trustee has a limited view of the financial risks and opportunities the Scheme is exposed to from climate change and, therefore, addressing data quality is aligned with the Trustee's fiduciary duty to act in members' best interests.

Emissions data may be reported or, where not available, estimated. The target level was calculated by dividing the value of assets with reported/estimated emissions (across in-scope fund managers), by the total value of assets within scope where there was emissions data coverage greater than 0% - this provided a broad view of what level of data quality was achievable at the time, if fund managers reported emissions figures. The Trustee believes the target should be achievable if fund managers that are not currently reporting emissions data begin doing so.

Metrics and targets

The parameters of the target are outlined below:

Assets within scope – “Illiquid Credit” and “Liquid Credit” holdings	Baseline date and level – 31 December 2022	Target date – 31 December 2026
Rationale: These portfolios form a significant part of the current and updated long-term investment strategy, and, would be expected to be held for at least the medium term. Within each asset class, there were varying levels of data coverage across different fund managers, but there were examples of fund managers with data coverage reaching at least 2/3 within each asset class at the baseline assessment date. Cash was excluded given asset class specific issues with methodologies. LDI was excluded as this allocation is driven by liability matching objectives, rather than any climate-related factors.	The metrics disclosed in the Scheme’s first TCFD report were used as the baseline level. That report was written using data as at 31 December 2022 unless otherwise stated. The baseline level was calculated by dividing the value of assets with reported/estimated emissions by the total value of assets within scope.	This date was in line with the Scheme’s journey plan to be fully funded on a self-sufficiency basis by 2026 and is defined as being the short-term time horizon for the purposes of these disclosures.

Initial performance against the target

The climate reporting carried out for the Scheme during the first year of reporting included an assessment of the alignment with the above target. Broadly 22.5% of assets within scope provided reported emissions data and 14.3% had their emissions data estimated. At the time, the Trustee did not set any targets for assets outside of the target’s scope.

The analysis enabled the Trustee to identify the most appropriate funds and managers to focus its engagement on, which would result in the most significant improvement in the Scheme’s alignment with its target. The Trustee monitors progress against its target on an annual basis.

Metrics and targets

Updated assessment of performance against the target

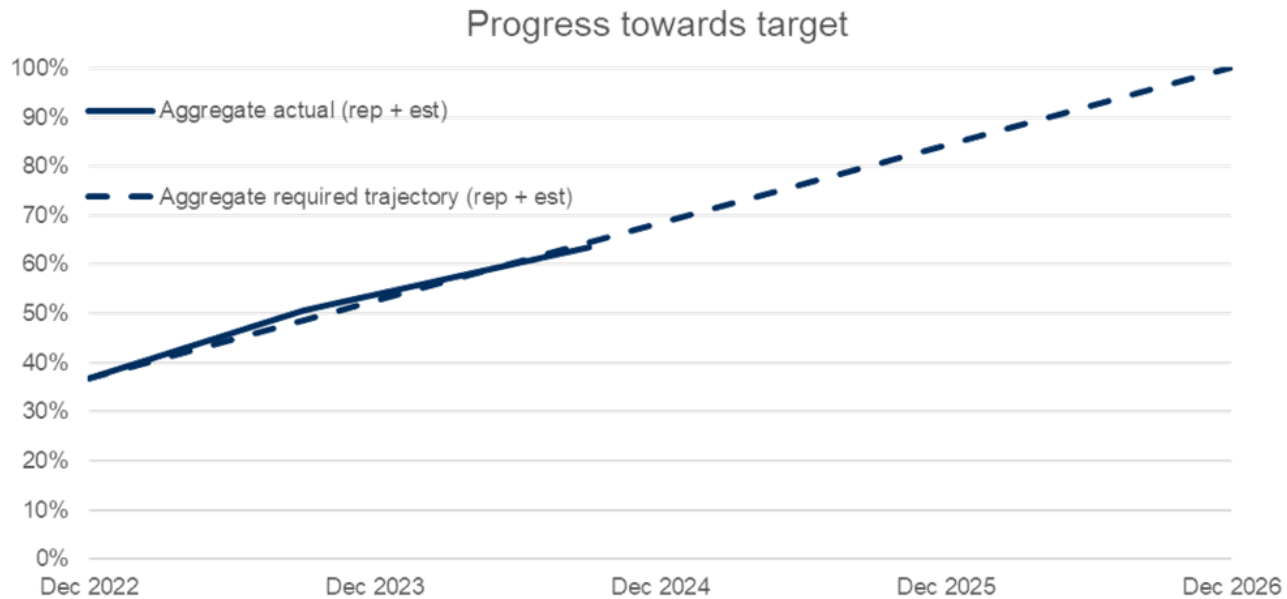
The calculation of the progress against the target is done by dividing the value of assets with reported/estimated emissions (across in-scope fund managers), by the total value of assets within scope.

There is a 12 month period between the previous assessment date and the one used in this update. Over that time overall progress has been in line with the trajectory required to meet the target (with the proportion of reported emissions ahead of target and the proportion of estimated emissions behind target). Since data that is reported is of higher quality data than is estimated, the higher proportion of reported emissions at this stage is a good outcome.

There was a modest improvement in overall data coverage across the portfolio during the Scheme Year. Some progress was driven by improved reporting from certain illiquid credit managers compared to the previous metrics collection cycle. However, the majority of the increase in data coverage resulted from a higher allocation to the Scheme's long-term bond portfolio. Although data quality within this strategy declined slightly year-on-year, it remained superior to that of the funds redeemed to facilitate the increased allocation.

The Scheme also reduced its exposure to illiquid credit holdings, where climate data had previously been largely estimated. This reallocation led to a corresponding decrease in the proportion of assets with estimated data. Additionally, the Scheme fully exited its allocation to 'Growth diversifiers', which were UK property funds where the climate data coverage was low.

Metrics and targets



Metrics and targets

The following steps are being taken to achieve the target:

- After the target was initially selected the Trustee's investment adviser communicated the target to each in-scope fund manager where the data quality was not at the target level. It asked fund managers that were exceeding the target level to continue work to improve the quality of data.
- The Trustee's investment adviser often talks to fund managers as part of the existing monitoring process. Occasionally the Trustee will meet fund managers. When meeting with the Scheme's managers affected by the target, the Trustee will ask the manager how they expect data quality to increase over time and what additional pressure they are putting on portfolio companies to achieve this. They will point to best practice seen within the relevant asset class.
- Following the Trustee's agreement to set a 2040 net zero emissions target, the Trustee increased the sustainability criteria in its credit portfolio (which was implemented in January 2024 and then further updated in September 2024). This involved discussions with the fund manager on how they could support the Trustee's aims and incorporate sustainability features within investment objectives or guidelines. The nature of the Trustee's wider sustainability related work should naturally encourage further progress against the TCFD target.
- The Trustee reviews progress towards the target once a year and considers whether additional steps are needed to increase its chance of meeting the target. On a quarterly basis the Trustee also receives climate information on data quality from its investment adviser (updated every 6 months) and therefore has the opportunity to consider further action on a more regular basis.
- The Trustee identified some of its illiquid credit managers as specific targets for engagement to improve on data quality as a large gap remains in this asset class. It was agreed that the Trustee's investment adviser would request updates on the work being done to address the gaps.



Appendices

- Appendix 1 – Climate scenario analysis
- Appendix 2 – Scheme overview and Glossary

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Appendix 1 – Climate scenario analysis

Key features of the climate scenarios considered by the Trustee

The scenarios as at 31 December 2021 were as shown in the following table, with subsequent comments based on the exercise conducted as at June 2022

Scenarios:	Failed Transition	Orderly Net Zero by 2050	Disorderly Net Zero by 2050
Low carbon policies	Continuation of current low carbon policies and technology trends	Ambitious low carbon policies, high investment in low-carbon technologies and substitution away from fossil fuels to cleaner energy sources and biofuel. Carbon Capture and Storage also used to achieve global net zero by 2050.	
Paris Agreement outcome	Paris Agreement goals not met	Global net zero achieved by 2050; Paris Agreement goals met.	
Global warming	Average global warming is about 2°C by 2050 and 4°C by 2100, compared to pre-industrial levels	Average global warming stabilises at around 1.5°C above pre-industrial levels	
Physical impacts	Severe physical impacts	Moderate physical impacts	
Impact on GDP	Global GDP is significantly lower than the climate-uninformed scenario in 2100. For example, UK GDP in 2100 predicted to be 50% lower than in the climate uninformed scenario.	Global GDP is lower than the climate-uninformed scenario in 2100. For example, UK GDP in 2100 predicted to be about 5% lower than in the climate-uninformed scenario.	In the long term, global GDP is slightly worse than in the Orderly Net Zero scenario due to the impacts of financial markets volatility.
Financial market impacts	Physical risks priced in over the period 2026-2030. A second repricing occurs in the period 2036-2040 as investors factor in the severe physical risks.	Transition and physical risks priced in smoothly over the period of 2022-2025.	Abrupt repricing of assets causes financial market volatility in 2025.

Appendix 1 – Climate scenario analysis

Scenario outcomes

The scenario analysis highlighted a number of potential financial impacts for the Scheme including:

- In the short term (next 5 years), climate impacts could be significant despite the Scheme having a relatively low allocation to the asset classes that are expected to be most exposed to climate risk. Some scenarios could result in detrimental funding impacts relative to the base case. The Paris Disorderly Transition (dark blue line) has the most significant impact and is expected to keep the Scheme in deficit beyond the short term, whereas in the other scenarios the Scheme is broadly fully funded by that point.
- In the medium and long term (ie over 5 years), the Trustee aims to run off the Scheme benefits, which requires a low-risk investment strategy. However, some market risks will remain (albeit the longer-term potential climate impacts are lower than if the Scheme held riskier assets) – particularly those associated with a Failed Transition. Please see the section on the long-term funding target below.

- Ultimately, all scenarios are expected to be detrimental to the funding position versus the base case over the long term (albeit with the Scheme having achieved a surplus funding level in most of the modelled scenarios). Furthermore, any future de-risking of the investment strategy, which would be likely if a funding surplus were to materialise, will be an important mitigation tool to reduce the level of climate change exposure.

The scenarios may indicate that delayed de-risking to 2026 will lead to an improved funding position for the Scheme due to the increased returns over the period to 2026. During the discussions around this analysis, the Trustee was informed that the lines on the chart represent median outcomes. In practice, an improved funding position may not be the case as the increased risk carried by the Scheme increases the variance of the final surplus position. Were output from scenario analysis represented as a funnel illustrating the probability of a range of outcomes, the funnel would be wider on the delayed de-risking strategy than on the linear de-risking strategy, indicating a greater probability of materially detrimental downside outcomes.

Appendix 1 – Climate scenario analysis

Impact of climate change on life expectancy

If a member lives longer, the Scheme pays the member's pension for longer and therefore needs more assets to make the payments.

Like the economic impacts, the impact of climate change on life expectancy is highly uncertain. As part of the discussions on the climate scenario analysis, the Trustee considered the various possible drivers for changes in mortality rates with both positive and negative impacts expected in each of the scenarios considered.

For example, in the Orderly Net Zero by 2050 scenario, the reduced use of fossil fuels should lead to lower air pollution, increasing life expectancy. But this effect could be countered by economic prosperity generally being lower in this scenario, and this may limit the funding available for healthcare.

Given the level of uncertainty, the Trustee noted that no specific allowance has currently been made in the scenario analysis, but that it would keep up to date on developments in this area and consider it further at the next actuarial valuation.

Appendix 1 – Climate scenario analysis

Long-term funding target (self-sufficiency with a prudence buffer)

The Trustee's short-term funding target is to be fully funded on a low-risk basis by 2026 with limited dependence on the sponsoring employer.

The Trustee discussed the possible impact of climate change on its long-term funding target. In particular, the Trustee considered how climate change risks could affect its ability to pay members the benefits due to them. Climate change could have a significant impact on the liquidity and pricing of investments. However, the Scheme is reasonably well funded with a funding strategy that is low risk. The sponsoring employer is liable (in part) to fund any deficits that appear, so it is important to consider the long-term ability of the sponsoring employer to support the Scheme.

Future changes to pricing of investments is uncertain, as is the outlook for individual companies for periods beyond a few years, so the Trustee will continue to undertake scenario analysis to consider how developments in climate change, markets and at the sponsoring employer are likely to play out over the long term.

The main influence of the climate scenario analysis was to highlight that the sooner the Scheme begins to de-risk, the less likely climate change risks would result in detrimental outcomes which might impact the security of members' benefits. This ultimately was a factor in the decision made after the end of the reporting period to accelerate the pace of de-risking.

Appendix 1 – Climate scenario analysis

Appendix: Modelling approach – more details

- The scenario analysis is based on the ClimateMAPS model developed by Ortec Finance and Cambridge Econometrics, and was then applied to the Scheme's assets and liabilities by LCP. The three climate scenarios were projected year by year, over the next 20 years.
- ClimateMAPS uses a top-down approach that consistently models climate impacts on both assets and liabilities, enabling the resilience of the Scheme's funding strategy to be considered. The model output is supported by in-depth narratives that bring the scenarios to life to help the Trustee's understanding of climate-related risks and opportunities.
- ClimateMAPS uses Cambridge Econometrics' macroeconomic model which integrates a range of social and environmental processes, including carbon emissions and the energy transition. It is one of the most comprehensive models of the global economy and is widely used for policy assessment, forecasting and research purposes. The outputs from this macroeconomic modelling – primarily the impacts on country/regional GDP – are then translated into impacts on financial markets by Ortec Finance using assumed relationships between the macroeconomic and financial parameters.
- Ortec Finance runs the projections many times using stochastic modelling to illustrate the wide range of climate impacts that may be possible, under each scenario's climate pathway. LCP takes the median (ie the middle outcome) of this range of impacts, for each relevant financial parameter, and adjusts it to improve its alignment with LCP's standard financial assumptions.
- LCP then uses these adjusted median impacts to project the assets and liabilities of the Scheme to illustrate how the different scenarios could affect its funding level. The modelling summarised in this report used scenarios based on the latest scientific and macro-economic data at 31 December 2021, calibrated to market conditions at 31 March 2022.
- The modelling included contributions assumed to be paid in line with the current Schedule of Contributions, and the Trustee discussed how future planned changes to the investment strategies for the Scheme would change the analysis. No allowance was made for changes to the investment strategy or contributions in response to the climate impacts modelled.

Appendix 1 – Climate scenario analysis

- As this is a “top-down” approach, investment market impacts were modelled as the average projected impacts for each asset class, ie assuming that the Scheme’s investments are affected by climate risk in line with the market-average portfolio for the asset class. This contrasts with a “bottom up” approach that would model the impact on each individual investment held in the Scheme’s investment portfolio. As such, it does not require extensive scheme-specific data and so the Trustee was able to consider the potential impacts of the three climate scenarios for all of the Scheme’s assets.
- In practice, the Scheme’s investment portfolio may not experience climate impacts in line with the market average. The Trustee considers, on an ongoing basis, how the Scheme’s climate risk exposure differs from the market average using climate metrics (which are compared with an appropriate market benchmark) and its annual responsible investment review which considers the investment managers’ climate approaches.
- Uncertainty in climate modelling is inevitable. In this case, key areas of uncertainty relating to the financial impacts include how climate change might affect interest rates and inflation, and the timing of market responses to climate change. ClimateMAPS, like most modelling of this type, does not allow for all climate-related impacts and therefore, in aggregate, is quite likely to underestimate the potential impacts of climate-related risks, especially for the Failed Transition scenario. For example, tipping points (which could cause runaway physical climate impacts) are not modelled and no allowance is made for knock-on effects, such as climate-related migration and conflicts.

Appendix 2 – Scheme overview and Glossary

(a) Scheme overview

During the Scheme Year, the Scheme was comprised of two segregated sections, known as the Main Section and the Hartlepool Section. The two sections were formally sectionalised for funding purposes. The Trustee's governance procedures, however, generally apply at a Scheme level.

The Main Section comprised three benefit structures relating to defined benefit liabilities, for WPS, MIS and Executive members. The Trustee considers the assets, liabilities and funding of those structures to be sufficiently similar that it is appropriate that they should be grouped together for the purposes of the Scheme's approach to climate change.

The Trustee completed a bulk annuity transaction in respect of all liabilities for Hartlepool members in May 2020. The Trustee's approach to climate change was considered separately for those assets (as described on page 44 above).

(b) Glossary

Actuarial valuation – an actuarial valuation is an accounting exercise performed to estimate future liabilities arising out of benefits that are payable to members of a DB pension scheme, typically once every three years. In the actuarial valuation exercise, a liability payout at a future date is estimated using various assumptions such as discounting rate and salary growth rate.

Alignment – in a climate change context, alignment is the process of bringing greenhouse gas emissions in line with 1.5° C temperature rise targets. It can be applied to individual companies, investment portfolios and the global economy.

Asset-backed securities (ABS) – invests in financial instruments that are similar to bonds, where the regular interest payments to investors are not sourced from a single issuer, but instead from a diversified pool of underlying borrowers. These may include companies, commercial or residential property owners, or individuals who have borrowed money to finance vehicles or other goods.

Asset class – a group of securities which exhibit broadly similar characteristics. Examples include equities and bonds.

Appendix 2 – Scheme overview and Glossary

Avoided emissions – these are reductions in greenhouse gas emissions that occur outside of a product's life cycle of value chain, but as a result of the use of that product. For example, emissions avoided through use of a wind turbine or buildings insulation.

Bond – a bond is a security issued to investors by companies, governments and other organisations. In exchange for an upfront payment, an investor normally expects to receive a series of regular interest payments plus, at maturity, a final lump sum payment, typically equal to the amount invested originally, or this amount increased by reference to some index.

Carbon emissions – These refer to the release of carbon dioxide, or greenhouse gases more generally, into the atmosphere, for example from the burning of fossil fuels for power or transport purposes.

Carbon footprint – In an investment context, the total carbon dioxide or greenhouse gas emissions generated per amount invested (eg in £m) by an investment fund. Related definitions are used to apply the term to organisations, countries and individuals.

Climate change adaptation – steps taken to adapt to the physical effects of climate change such as improving flood defences and installing air conditioning.

Climate change mitigation – steps taken to limit climate change by reducing greenhouse gas emissions, for example by shifting to renewable sources of energy – such as solar and wind – and by using less energy and using it more efficiently.

Covenant – the ability and willingness of the sponsoring employer to make up any shortfall between a DB scheme's assets and the agreed funding target.

Credit – long-term debt issued by a company, also known as corporate bonds. Corporate bonds carry different levels of credit risk which is indicated by their rating and credit spread.

Defined Benefit (DB) – a pension scheme in which the primary pension benefit payable to a member is based on a defined formula, frequently linked to salary. The sponsoring employer bears the risk that the value of the investments held under the scheme fall short of the amount needed to meet the benefits.

Debt – money borrowed by a company or government which normally must be repaid at some specified point in the future.

Appendix 2 – Scheme overview and Glossary

Environmental, social and governance (ESG) – an umbrella term that encompasses a wide range of factors that may have been overlooked in traditional investment approaches. Environmental considerations might include physical resource management, pollution prevention and greenhouse gas emissions. Social factors are likely to include workplace diversity, health and safety, and the company's impact on its local community. Governance-related matters include executive compensation, board accountability and shareholder rights.

Equity – through purchase on either the primary market or the secondary market, company equity gives the purchaser part-ownership in that company and hence a share of its profits, typically received through the payment of dividends. Equity also entitles the holder to vote at shareholder meetings. Note that equity holders are entitled to dividends only after other obligations, such as interest payments to debt holders, are first paid. Unlike debt, equity is not normally contractually repayable.

Ethical investment – an approach that selects investments on the basis of an agreed set of environmental, social and governance (ESG) criteria that are motivated by ethical considerations. These can be positive – eg choosing companies involved in water conservation or negative – eg not choosing companies involved in the arms trade.

Fiduciary obligations – a legal obligation of one party (a fiduciary) to act in the best interest of others. Fiduciaries are people or legal entities that are entrusted with the care of money or property on behalf of others. They include pension scheme trustees.

Fossil fuels – fuels made from decomposing plants and animals, which are found in the Earth's crust. They contain carbon and hydrogen, which can be burned for energy. Coal, oil, and natural gas are examples of fossil fuels.

Funding position – a comparison of the value of assets with the value of liabilities for a DB pension scheme.

Gilts – bonds issued by the UK government. They are called gilts as the bond certificates originally had a gilt edge to indicate their high quality and thus very low probability of default.

Greenhouse gas (GHG) emissions (scopes 1, 2 and 3) – gases that have been and continue to be released into the Earth's atmosphere. Greenhouse gases trap radiation from the sun which subsequently heats the planet's surface (giving rise to the "greenhouse effect"). Carbon dioxide and methane are two of the most important greenhouse gases.

Gross Domestic Product (GDP) – this is the value of all goods and services produced in a country over a given period, typically a year.

Appendix 2 – Scheme overview and Glossary

Illiquid credit – Also known as private credit, refers to debt financing by non-bank entities to borrowers in exchange for periodic interest payments, the repayment of the principal amount at maturity, and arrangement fees. The debt is not easily traded in comparison with corporate bonds and is usually backed by the borrower's cash flows and/or underlying assets. Private credit can take various forms, including: direct corporate lending, lending to infrastructure owners, lending to commercial real estate owners, and asset-backed lending.

Investment mandate – see pooled mandate and segregated mandate.

Integrated risk management – Integrated risk management is an approach used by DB pension scheme trustees to identify, manage and monitor the wide range of risks (relating to investment, funding and covenant) which might impact the chances of meeting their scheme's overall objectives.

Liabilities – obligations to make a payment in the future. An example of a liability is the pension benefit 'promise' made to DB pension scheme members, such as the series of cash payments made to members in retirement. The more distant the liability payment, the more difficult it often is to predict what it will actually be and hence what assets need to be held to meet it.

LDI (Liability Driven Investment) – an investment approach which focusses more than has traditionally been the case on matching the sensitivities of a DB pension scheme's assets to those of its underlying liabilities in response to changes in certain factors, most notably interest rate and inflation expectations.

Net zero – this describes the situation in which total greenhouse gas emissions released into the atmosphere are equal to those removed. This can be considered at different levels, eg company, investor, country or global.

Offsetting – the process of paying someone else to avoid emitting, or to remove from the atmosphere, a specified quantity of greenhouse gases, for example through planting trees or installing wind turbines. It is sometimes used to meet net zero and other emission reduction targets.

Paris Agreement – the Paris Agreement is an international treaty on climate change, adopted in 2015. It covers climate change mitigation, adaptation and finance. Its primary goal is to limit global warming to well below 2° C, preferably to 1.5° C, compared to pre-industrial levels.

Physical risk – these are climate-related risks that arise from changes in the climate itself. They include risks from more extreme storms and flooding, as well as rising temperatures and changing rainfall patterns.

Appendix 2 – Scheme overview and Glossary

Pooled mandate – a feature of a collective investment vehicle whereby an investor's money is aggregated (ie “pooled”) with that of other investors to purchase assets. Investors are allotted a share of those assets in proportion to their contribution. Ownership is represented by the number of “units” allocated – eg if the asset pool is worth £1m and there are 1m units then each unit is worth £1. Pooled funds offer smaller investors an easy way to gain exposure to a wide range of investments, both within markets (eg by buying units in a UK equity fund) as well as across markets (eg by buying units in both a UK equity fund and a UK corporate bond fund).

Portfolio alignment metric – this measures how aligned a portfolio is with a transition to a world targeting a particular climate outcome, such as limiting temperature rises to well below 2° C, preferably to 1.5° C, as per the Paris Agreement. Assessments using these metrics consider companies' and governments' greenhouse gas (GHG) emissions reduction plans and likelihood of meeting them, rather than current, or the latest reported, GHG emissions.

Purchasing Power Parity (PPP) – the PPP is a theory of long-term equilibrium in exchange rates based on relative prices. For example, if the price of a basket of goods in the UK is £100 and the same basket costs \$200 in the USA, then the PPP exchange rate would be £1:\$2. The PPP rate and the actual market exchange rate can differ.

Responsible Investment (RI) – the process by which environmental, social and governance (ESG) issues are incorporated into the investment analysis and decision-making process, and into the oversight of investments companies through stewardship activities. It is motivated by financial considerations aiming to improve risk-adjusted returns. Sometimes described as Sustainable Investing.

Science-based targets – targets to reduce greenhouse gas emissions that are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement.

Science-Based Targets initiative (SBTi) – an organisation that sets standards and provides validation for science-based targets set by companies and investors.

Scenario analysis – a tool for examining and evaluating different ways in which the future may unfold.

Scope 1, 2 and 3 – a classification of greenhouse gas emissions.

Segregated mandate – a segregated investment approach ensures that an investor's investments are held separately from those of other investors. This approach offers great flexibility – for example, the investor can stipulate the precise investment objective to be followed and can dictate which securities can or cannot be held.

Appendix 2 – Scheme overview and Glossary

Stakeholder – an individual or group that has an interest in any decision or activity of an organisation. The stakeholders of a company include its employees, customers, suppliers and shareholders.

Statutory obligations – statutory obligations are those obligations that do not arise out of a contract, but are imposed by law.

Stewardship – stewardship is the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society. It is often implemented via engagement with investee companies and exercising voting rights.

Stranded assets – assets that have suffered an unanticipated loss of value before the end of their expected useful economic life. The term is most often applied to fossil fuel investments in the context of climate policy, where legislative and market developments may result in assets being worth less than the value recorded on company balance sheets.

Sustainable investing – an approach in which an assessment of the environmental and social sustainability a company's products and practices is a key driver in the investment decision. ESG analysis therefore forms a cornerstone of the investment selection process. Sometimes described as Responsible Investment.

Taskforce on Climate-related Financial Disclosures (TCFD) – a group of senior preparers and users of financial disclosures from G20 countries, established by the international Financial Stability Board in 2015. The TCFD has developed a set of recommendations for climate-related financial risk disclosures for use by companies, financial institutions and other organisations to inform investors and other parties about the climate-related risks they face.

Transition risk – these are climate-related risks that arise from the transition to a low-carbon economy and can include changes in regulation, technology and consumer demand.

