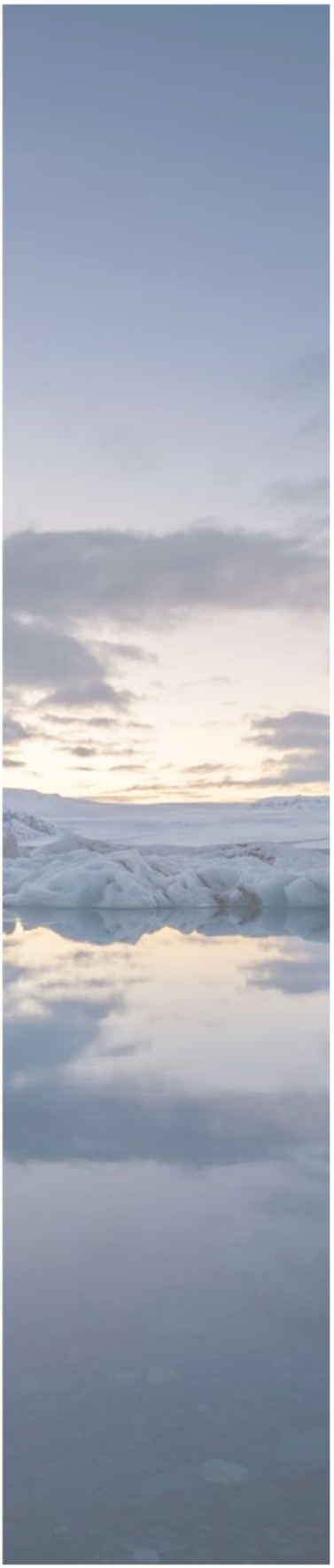
Climate disclosures for year ended 31 March 2024

Produced by: Combined Nuclear Pension Plan Trustees Limited

Date: July 2024

Introduction



Climate change is affecting the planet, causing extreme weather events, impacting crop production, and threatening Earth's ecosystems. Understanding the impact of climate change and the Plan's vulnerability to climate-related risks will help us to mitigate the risks and take advantage of any opportunities.

UK regulations require trustees of pension schemes with more than £1bn in assets to meet certain climate governance requirements and publish an annual report on their scheme's climate-related risks.

Better climate reporting should lead to better-informed decision-making on climate-related risks. On top of that, greater transparency around climate-related risks should increase accountability and provide decision-useful information to investors and beneficiaries.

This report is the annual climate disclosures for the Plan for the year ended 31 March 2024. The four elements covered in the report are:

1) **Governance:** The Plan's governance around climate-related risks and opportunities.

2) **Strategy:** The potential impacts of climate-related risks and opportunities on the Plan's strategy and financial planning.

3) **Risk Management:** The processes used to identify, assess, and manage climate-related risks.

4) **Metrics and Targets:** The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

This report has been prepared by the Combined Nuclear Pension Plan Trustees Limited (the "Trustee") for the Combined Nuclear Pension Plan (the "Plan") in accordance with the regulations set out under The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the "Regulations").

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Executive summary

This report sets out the actions that the Trustee has taken to understand the potential impact climate change could have on the Plan.

We, the Trustee, have worked closely with our investment adviser to identify the climate-related risks and opportunities faced by the Plan, and to understand ways we can manage and mitigate those risks.

Overview of the Plan

The Plan is set up as a Master Trust and is comprised of a Defined Benefit ("DB") Structure and a Defined Contribution ("DC") Structure.

- The DB Structure is comprised of underlying sections, which then invest their assets through a Common Investment Platform ("CIP"). The CIP is managed by the Trustee for the sole use of the Plan and invests in a range of different assets, and each underlying section is able to tailor its investment in the CIP.

- The DC Structure consists of two main default strategies, with members able to choose from eleven additional self-select funds and a range of target date funds based on their investment objectives.

The Trustee has been supported by its investment advisers, Aon Investments Limited ("Aon") (DB Structure investment adviser) and Redington Limited ("Redington") (DC Structure investment adviser) with the production of its TCFD disclosures report and also the data contained within it.

Governance

- The Trustee is ultimately responsible for the oversight of all strategic matters relating to the Plan, this includes the governance and management framework relating to Environmental, Social and Governance ("ESG") and climate-related risks and opportunities.
- More details around the governance framework and how it has been implemented in practice can be found in the governance pillar statement and update from the Trustee on pages 9 to 11. This includes:
    - A summary of training which the Trustee has received from its advisers to gain increased knowledge of the potential impacts of climate related risks and opportunities on the Plan.
    - Changes implemented within the asset portfolios expected to help mitigate against the risks associated with climate related risks and opportunities.
    - The Trustee has developed a climate risk management plan detailing how it incorporates the monitoring of climate related risks and opportunities into its ongoing activities. This is covered further in the risk management pillar of this report.
- The Trustee has been supported by its investment advisers, Aon Investments Limited ("Aon") (DB Structure investment adviser) and Redington Limited ("Redington") (DC Structure investment adviser) with the production of its TCFD disclosures report and also the data contained within it.

Strategy

The Trustee has undertaken a combination of qualitative and quantitative analysis. A summary of the analysis is below.

DB Structure

- The Trustee has undertaken qualitative analysis to better understand the climate-related risks and opportunities that impact the different asset classes in which the Plan invests. Following changes to the mandates in which the Plan invests, there has been an improvement in the qualitative assessment for the Corporate Bonds mandate. More details can be found on pages 16-24.
- The qualitative assessment describes the potential impact of both physical and transition risks over time. The Trustee continues to explore ways to mitigate these risks.
- Alongside this the Trustee made the appointment of two new managers to the Plan, the Robeco SDG Credit Fund and the Copenhagen Infrastructure Fund V (a renewable energy infrastructure fund), that the Trustee identified exhibited a high degree of ESG reintegration.
- The Trustee also undertook climate scenario analysis, which considered the three different investment strategies adopted by the Sections of the Plan. This showed the Plan has a reasonable degree of resilience relative to climate-related risks. The resilience was primarily driven by the high level of diversification in the assets and hedging assets which aim to protect against changes in interest rates and inflation. This has been supported further by changes which the Trustee has made within its strategy to invest in assets with a greater awareness and integration of ESG factors, including climate change.

DC Structure

- Both default strategies are Target-Date Funds managed by BlackRock. The Trustee and its adviser engage regularly with the fund manager to ensure climate-related enhancements are integrated into the portfolio. Where possible, the portfolio manager has switched to an Environmental, Social and Governance ("ESG") screened index. Additionally, the LifePath strategies are invested in "building blocks" with explicit ESG related considerations.
- To align with the timings of the DB Structure scenario analysis update, the scenario analysis for the DC Structure has also been updated. Due to developments in industry-wide best practice, Redington has adopted an alternative approach to scenario analysis and the underlying methodology used to those developed by the Network for Greening the Financial System ("NGFS") from the previously used Prudential Regulation Authority ("PRA") stress tests, in comparison to the Plan's first two TCFD reports.

Risk Management

- The Trustee has integrated climate-related risks into its various documents and processes. For example, the Trustee has a clear policy on asset stewardship, including the impact of climate change, as outlined in its Statement of Investment Principles and the Trustee receives data on voting and engagement from its managers for both the DB and DC Structures annually (as outlined in its DB and DC Implementation Statement, which are produced annually). The Trustee has further integrated climate risks and opportunities into the selection process of any new mandates implemented through the reporting year.

- The Trustee has outlined the Risk Management Plan on pages 40-42, which assists with the ongoing management of climate-related risks and opportunities. Alongside this, the Trustee undertakes periodic training on responsible investment to understand how ESG factors, including climate change, may impact the Plan's assets and liabilities. Details of training the Trustee has undertaken through the Plan's year are included in the Governance Section and Risk Management Section.

Metrics and Targets

All of the Plan's managers were contacted for carbon metrics information and the Trustee noted that there continues to be improvement in the coverage of data. However, it does still vary across asset classes. We have disclosed information on four climate-related metrics for each of the DB and DC Structures of the Plan:

- Total Greenhouse Gas ("GHG") Emissions.
- Carbon Footprint.
- Data Coverage.
- Implied temperature rise

The definitions of these metrics can be found on page 47.

The Trustee has also set the following targets for each Structure of the Plan:

DB Structure
The Trustee has adopted the following targets by the end of the 5 year period since TCFD reporting has been produced by the Plan, using 2021 as its baseline year (i.e., by the end of 2026):

- To achieve 80% coverage of data across scope 1&2, and scope 3 GHG emissions for the Plan's total assets.
- To achieve 80% coverage of data for the property assets (scopes 1, 2 and 3 GHG emissions).
- To achieve 60% coverage of data for the active credit assets (scopes 1, 2 and 3 GHG emissions).

DC Structure

- To achieve above 80% coverage of carbon emission data across all asset classes split across scopes 1, 2 and 3 over a 5-year period, from 2021 to 2026. The Plan will continue to use data from 2021 as its baseline year.

We reviewed the metrics and the targets and we believe they remain appropriate.

Trustee's actions and update

The Trustee has implemented the following strategic changes supported by the TCFD framework being implemented. In summary the Trustee has:

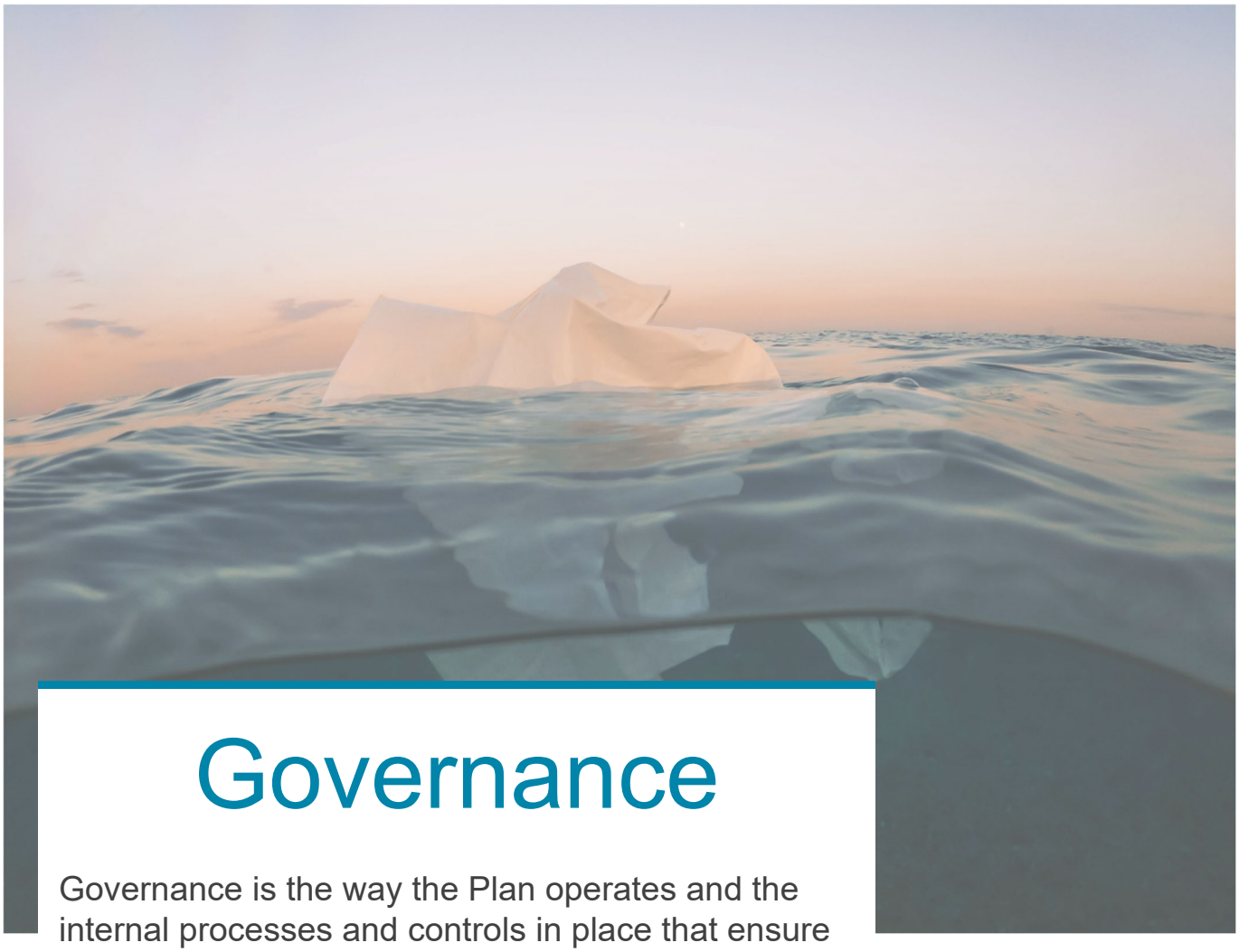
- As noted in last year's report, the Trustee has appointed a Sustainable Development Goals Credit Fund to the DB Structure to better account for the climate-related risks within its investment strategy. The Plan made its initial investment into the fund in January 2024.
- Appointed a Direct Lending Fund to the DB Structure. This Fund includes ESG-linked ratchets in the underlying loans that financially incentivise the underlying equity owners to positively improve their ESG credentials.
- Appointed a Renewable Energy Infrastructure Fund within the DB Structure to aid in generating a positive impact on the portfolio's contribution towards climate change. The funding for this commitment is expected to begin mid-2024.
- The Trustee has engaged with Aegon in relation to the DC Structure, to improve the data coverage and granularity of the metrics provided.
- The Trustee is exploring the addition of another ESG-tilted asset for the DC Structure; however, this is still undergoing further considerations.
- Completed a refresh of its quantitative climate scenario analysis, which have been undertaken by its advisers for the DB Structure, covenant and the DC Structure.
- Continues to report on a forward-looking emission metric, Implied Temperature Rise, to better track the alignment of the Plan's assets with global temperature goals (e.g., limiting the increase in the global average temperature to 1.5˚C above pre-industrial levels).

The Trustee will continue monitoring its investment strategy and assess its appropriateness on a regular basis.

We hope you enjoy reading this report and understanding more about how we are managing climate-related risks and opportunities within the Plan.

Chair's signature

on behalf of the Trustee of the Combined Nuclear Pension Plan.



Governance

Governance is the way the Plan operates and the internal processes and controls in place that ensure appropriate oversight. Those undertaking governance activities are responsible for managing climate-related risks and opportunities. This includes us, as the Trustee, and others making Plan-wide decisions. These decisions relate to the investment strategy and its implementation, funding, and the ability of the sponsoring employer to support the Plan.

Our Plan's governance

Role of the Trustee Board

The Trustee is responsible for oversight of all strategic matters related to the Plan. This includes approval of the governance and management framework relating to Environmental, Social and Governance ("ESG") considerations and climate-related risks and opportunities. Given its importance, the Trustee has not identified one individual to specifically be responsible for the Trustee's response to climate risks and opportunities. Rather, the Trustee has collective responsibility for setting the Plan's climate change risk framework.

The Trustee has discussed and agreed its climate-related beliefs and overarching approach to managing climate change risk. Details are set out in the Statement of Investment Principles ("SIP") for the DB and DC Structures, which are reviewed regularly and updated where required by the Trustee.

The Trustee receives training on climate-related issues to develop the appropriate degree of knowledge and understanding on these issues to support good decision-making. The Trustee has informed its advisers of the need to bring important and relevant climate-related issues and developments to the Trustee's attention in a timely manner, informing the Trustee of its relevance to the Plan and incorporating climate-related issues into advice.

The Trustee receives updates, at least twice per year, from the Investment Sub Committee ("ISC"), which is a sub-committee of the Trustee and regularly monitors and reviews progress against the Plan's climate change risk management approach.

Trustee's update

Over the year, the Trustee reflected on the progress it has made to date regarding its TCFD disclosures.

The progress included the completion of two prior TCFD reports. The Trustee dedicated specific time to work through available feedback from the Pensions Regulator ("TPR"), and inclusion of scope 3 emissions and implied temperature rise ("ITR") additional metrics during its second-year reporting period.

The Trustee continues to align its TCFD disclosures with the latest available TPR's feedback and observations at the time of writing.

Role of the Investment Sub Committee

The Trustee has delegated the ongoing monitoring, and day-to-day implementation of the Plan's climate change risk management framework to the ISC.

The ISC seeks to ensure that any investment decisions appropriately consider climate-related risks and opportunities within the context of the Plan's wider risk and return requirements and are consistent with the climate change policy, as set out in the SIP. The ISC will incorporate this into future manager selection exercises, and also as part of the ongoing monitoring of investment managers.

Given the Plan's climate change risk management framework has been implemented, the ISC will continue to be responsible for the ongoing monitoring and implementation of the framework.

After previously agreeing the initial framework with the Trustee Board, the ISC will monitor and review progress against the Plan's climate change risk management approach twice per year. The ISC will keep the Trustee Board apprised of any material climate-related developments through regular (typically twice per year) updates.

Implementation is detailed later in this report, but key activities undertaken by the ISC with the support of the Trustee's advisers, are:

- Ensuring investment proposals consider the impact of climate-related risks and opportunities;
- Seeking investment opportunities which enhance the ESG and climate change focus of the Plan's portfolio;
- Engaging with the Plan's investment managers to understand how climate risks are considered in their investment approach;
- Working with the investment managers to disclose relevant climate-related metrics as set out in the TCFD recommendations; and,
- Ensuring that stewardship activities are being undertaken appropriately on the Plan's behalf.

Role of the Other Advisers or Stakeholders Deemed Relevant

- **Investment advisers:** the Trustee's investment advisers, Aon for the DB Structure and Redington for the DC Structure, provide strategic and practical support to the Trustee and the ISC in respect of the management of climate-related risks and opportunities and ensuring compliance with the recommendations set out by the TCFD.

  This includes provision of training and updates on climate-related issues and climate change scenario modelling to enable the ISC and Trustee to assess the Plan's exposure to climate-related risks.

- **Plan actuary:** the Plan actuary will help the Trustee assess the potential impact of climate change risk on the Plan's funding assumptions for the DB Structure as part of the actuarial valuation.

- **Covenant adviser:** the Plan's covenant adviser helps the Trustee understand the potential impact of climate change risk on the sponsor covenant of the participating employers.

Trustee's update

The Plan has appointed a Sustainable Development Goals Credit Fund to the DB Structure. The Trustee decided to invest in the fund in part to better account for the climate related risks within its investment strategy, with the initial investment made in January 2024.

The Trustee has also appointed a Renewable Energy Infrastructure Fund to aid in generating a positive impact on the portfolio's contribution to addressing climate change. Funding is expected to begin mid-2024.

Trustee's update

The Trustee sets clear expectations to its investment advisers around the need to bring important and relevant climate-related issues and developments to the Trustee's attention in a timely manner.

In October 2023, the Trustee dedicated further time on training to improve its knowledge including Biodiversity and the Taskforce on Nature-related Financial Disclosures ("TNFD") to better understand the implication of nature loss, its interconnectedness with climate change and possible actions the Trustee can take to mitigate the loss of biodiversity.

Governance of the DC Structure

The Trustee has delegated day-to-day management of the DC assets to BlackRock and M&G Prudential, via a number of pooled funds accessed through investment platforms from Scottish Equitable plc (branded as "Aegon") and Prudential Assurance Company Limited ("Prudential").

The statutory guidance issued by the Department for Work and Pensions ("DWP") requires trustees to undertake climate strategy activities for each 'popular arrangement offered'. A 'popular arrangement' is defined as one in which £100m or more is invested, or which accounts for 10% or more of the assets used to provide money purchase benefits. For the Plan, this would mean that the two main default arrangements are in scope.
As per ISC request, the Global Equity fund will be included in this scope, similar to the previous TCFD report, as it has been chosen by a large proportion of members. Following the default strategy and self-select fund review conducted in December 2023, the ISC has tasked Redington to further explore the feasibility of adding an ESG Global Equity Fund to the Plan's self-select range.

As the DC assets are invested exclusively in pooled funds, the ISC has worked closely with both Aegon and BlackRock to understand how they can support in providing the necessary information and data required to meet the requirements of the TCFD, as well as to identify where improvements in the data can be made compared to the Plan's previous TCFD reports.

Both Aegon and BlackRock's strategy to managing climate change risk and opportunities will continue to align closely to that of the CNPP Trustee. Aegon has confirmed that it will be able to provide key emissions data to support reporting for the metrics and target pillar but will not be able to undertake the scenario analysis. This means the scenario analysis will be completed by the Plan's investment adviser, as it has been completed in this report.

Trustee's update

During July 2023, the Trustee received further training on Stewardship and Engagement, where it looked at what requirements have been updated and put in place by the DWP.

This training session also covered the new expectations of UK pension schemes and the respective Stewardship policy and Implementation Statement requirements that the Trustee will consider.

Trustee's update

The Trustee obtained further training on Stewardship and discussed the latest Stewardship Guidance as set out by the DWP in October 2023, outlining the new expectations of UK Pension Schemes to consider within their Stewardship policy and Implementation Statement. This training session also considered a case study on BlackRock's approach to stewardship and engagement, as most of the DC members' assets are invested in pooled funds managed by BlackRock. Following the training, the Trustee arranged a discussion with Aegon to further understand its role in overseeing BlackRock's ESG and stewardship policy.

Strategy

It is crucial to think strategically about the climate-related risks and opportunities that may impact the Plan to allow the Trustee to mitigate the effect of climate change where possible.

Assessing the climate-related risks and opportunities the Plan is exposed to is key to understanding the impact climate change could have on the Plan in the future.

What climate-related risks are most likely to impact the Plan?

The Trustee has carried out a qualitative risk assessment of the asset classes the Plan is invested in. From this the Trustee has identified which climate-related risks could have a material impact on the Plan. The Trustee has also identified suitable climate-related opportunities.

As noted in the governance section of this report and the roles and responsibilities outlined, the Trustee has delegated the ongoing monitoring, and day-to-day implementation of the Plan's climate change risk management framework to the ISC. The Trustee receives updates, at least twice per year, from the ISC which is a sub-committee of the Trustee and regularly monitors and reviews progress against the Plan's climate change risk management approach, which is included in the risk management pillar of this report.

Given the number of asset classes the Plan is invested in, the Trustee has completed a best endeavours exercise to analyse the climate-related risks of each asset class. The Plan invests across a range of different asset classes and investment managers via pooled funds. As such, the Trustee's ability to influence how each manager incorporates climate related issues is limited. However, the Trustee asked its managers for details of how they were incorporating climate risks and opportunities into the funds and asset classes in which the Plan invests.

Trustee's update

The Trustee asked its investment managers to review and assess their exposure to climate-related risks for the funds the Plan is invested in.

The full assessment is set out on pages 16-24 of the report.

Our investments

The Plan's DB investment portfolio is diversified across a range of different asset classes including equities, active credit, property, private debt, illiquids and gilts.

The Plan's asset allocation is as follows:

DB Structure:

Asset Class	Equities	Active Credit	Property	Private Debt & Equity	Gilts	Corporate Bonds	Cash
Strategic Allocation	34%	7%	10%	17%	24%	6%	1%

Notes: Asset allocations as at 31 December 2023 rounded to whole numbers. The Plan is expected to make an investment into infrastructure in 2024, this has not been included in the allocation above. May not sum due to rounding.

The DC Structure offers a range of three sets of target-date funds, two of which are default options. The Plan also offers a range of self-select funds.

DC Structure:

Where members are invested	Default Lifestyle Funds	Self-select Funds
Allocation	76%	24%

Notes: Asset allocations as at 31 December 2023 rounded to whole numbers.

How the risk assessment works

Risk categories

In the analysis, the climate-related risks have been categorised into physical and transition risks.

Transition risks are associated with the transition towards a low-carbon economy.

Physical risks are associated with the physical impacts of climate change on companies' operations.

Ratings

The analysis uses a red, amber, green ("RAG") rating system where:

Red denotes a high level of financial exposure to a risk.

Amber denotes a medium level of financial exposure to a risk.

Green denotes a low level of financial exposure to a risk.

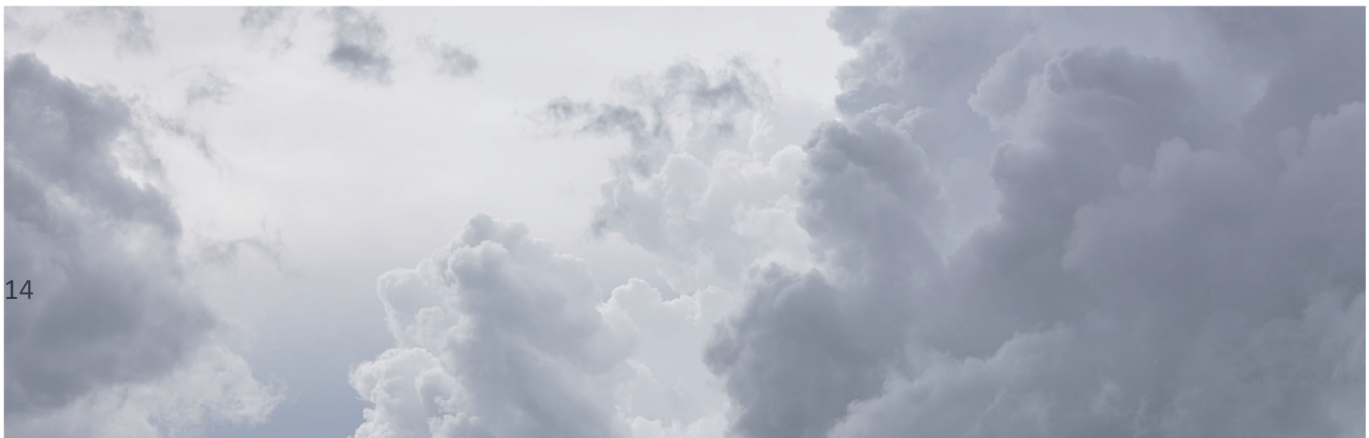
Time horizons

The Trustee assessed the climate-related risks and opportunities over multiple time horizons. The Trustee has decided the most appropriate time horizons for the Plan are:

- Short-term: 1-3 years
- Medium-term: 4-10 years
- Long-term: 11+ years

When deciding the relevant time horizons, the Trustee has taken into account the liabilities of the Plan and its obligations to pay benefits. These time horizons are also considered to be relevant to both the DB and DC Structures.

More details about transition and physical risks can be found in the Appendix.



Key conclusions

Diversification across asset classes, sectors and regions is important to manage climate-related physical and transition risks for the Plan.

Equities, which are a significant part of the assets, are deemed a medium- to high-risk area (particularly transition risks). These transition risks are more prevalent in the medium- to long-term. This is partially because policy and legal risks are high in both the medium- and long-term, due to low visibility regarding future carbon prices.

Active Credit is regarded as a medium- to high-risk area, especially regarding physical and reputational transition risks in the long-term. This stems from risks associated with extreme weather events and the increase in customer demand to effectively tackle climate change. There were no material changes identified by the managers over the year.

The Plan has seen a notable improvement in both the physical and transition risks experienced by **Corporate Bonds** this year, compared to what was reported in last year's TCFD report. The main catalyst for this improvement is the new investment into a Sustainable Development Goals ("SDG") Credit Fund, with a lower exposure to climate-related risks, such as transition and physical risks, than the Plan's legacy corporate bond managers. The change is to be expected given the strategy aims to invest in a way which responds to the United Nations SDG goals, with goal 13 focusing on action to combat climate change and its impacts.

Property is also a medium- to high-risk area, particularly in relation to policy-related transition risks in the long-term. Policy risks are expected to accelerate, with a significant expansion in carbon pricing across the globe. This may take many forms, either through direct pricing of carbon emissions or indirect pricing through measures such as subsidies for low-emission products. The investment managers identified policy and legal risks may become more significant as consumer demand continues to evolve alongside growing litigation risk. Over time, these risks will heighten as building-related legislation (e.g., to implement decarbonisation targets) is expected to become more stringent.

Three of the Plan's four **private debt and private equity** managers were unable to provide RAG ratings. The sole manager that provided the data in the requested format noted reputational risks, such as negative stakeholder feedback and changing customer preferences, represent a low-level risk in the short- and medium-term. Given the nature of the investment horizon for the private debt investment manager which provided data, long-term risks are not applicable.

Gilts were also identified as a medium-risk area in the long-term, in terms of both physical and transition risks. This stems from potential reputational risks in the long-term, likely arising from loss of social licenses and social unrest if climate policy is not addressed sufficiently. Alongside this is the expected increasing frequency of extreme weather events in the long-term, which pose greater physical risks.

The Plan's **Infrastructure** manager identifies it as a low-risk area across all three-time horizons. The manager notes that future physical risks are not expected to change, other than in relation to new investments made

Trustee's update

The Trustee noted an improvement in its managers being able to provide further detail in relation to the climate-related risks (physical and transition) within their portfolios.

The Trustee also requested an assessment from the Plan's two new managers, which both managers were able to provide. These managers were:

- Robeco (Corporate Bonds); and
- Copenhagen (Infrastructure).

Despite the improvement observed above, HPS, Partners Group and Blackstone were not able to provide the requested data.

by the fund. In these cases, the Plan's manager will consider investments based on the risk appetite of the fund.

The following tables summarise the physical and transition risks for each asset class the Plan is invested in.

Climate-related risk assessment (on asset class level)

DB Structure

The Plan invests across a range of different asset classes. We asked our investment managers for details of how they were incorporating climate risks and opportunities into the funds and asset classes in which the Plan invests over the short-, medium-, and long-term.

This year, the Trustee received information from the additional infrastructure investment manager which the Plan committed to in 2023 and which is expected to invest over 2024. At the time of writing three managers (representing approximately 13% of the DB Structure) were unable to provide the requested information for the risk assessment. One of these managers was able to provide limited details which, although not directly applicable to the assessment, were useful, nonetheless. The Trustee notes this is an improvement from the previous TCFD reporting year. The results are summarised below.

A small allocation of **approximately 1%** to cash has been excluded from the analysis on the basis of materiality.

Equities

The table below is applicable for the Plan's investment in equities, via pooled investment vehicles, which **forms approximately 34%** of the overall DB Structure's invested assets.

	Physical risks			Transition risks		
Time horizon	Acute	Chronic	Policy and Legal	Technology	Market	Reputation
Short (1-3 years)						
Medium (4-10 years)						
Long (11+ years)						

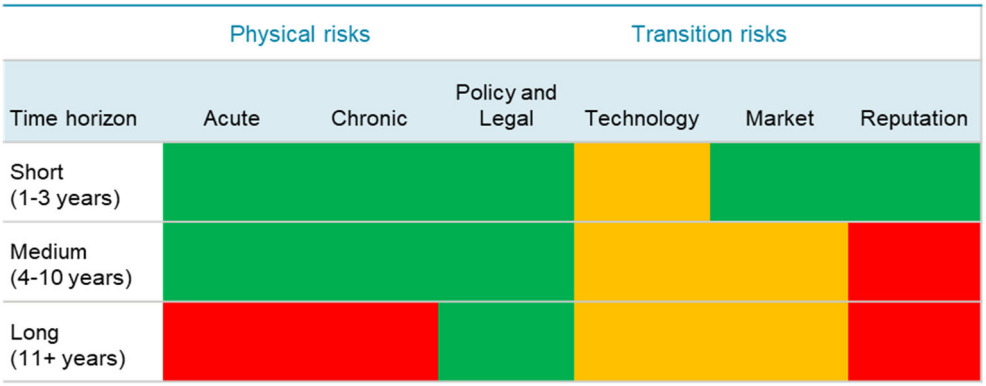
Source: Investment Manager.

Physical risks
The Plan's investment manager does not see any material physical risks in the short-term. Over the long-term, the manager believes that as extreme weather events become more frequent and severe the impact of these physical risks is likely to become more significant and cause business interruptions. Due to global interconnected supply chains, such physical risks can have potentially large financial impacts at the global equity portfolio level.

Transition risks
The Plan's investment manager identified a worsening of the policy and legal transition risks in the short- and medium-term, which were previously considered low- and medium-level risks. However, compared to last year the manager identifies a worsening for policy and legal, where a medium-risk in the short-term and high-risk in the medium-term have been identified. Again, the long-term policy and legal risks are identified as high, largely due to low visibility regarding future carbon prices, and the success of large-scale corporate legal cases, resulting in settlements with material financial impact. Over the longer-term the investment manager identified that increases in carbon prices and limited resources pose a material financial risk, squeezing profit margins.

Active Credit

The table below is applicable for the Plan's investments in active credit, via pooled investment vehicles, which **forms approximately 7%** of the overall DB Structure's invested assets.



Source: Investment Managers, Aon.

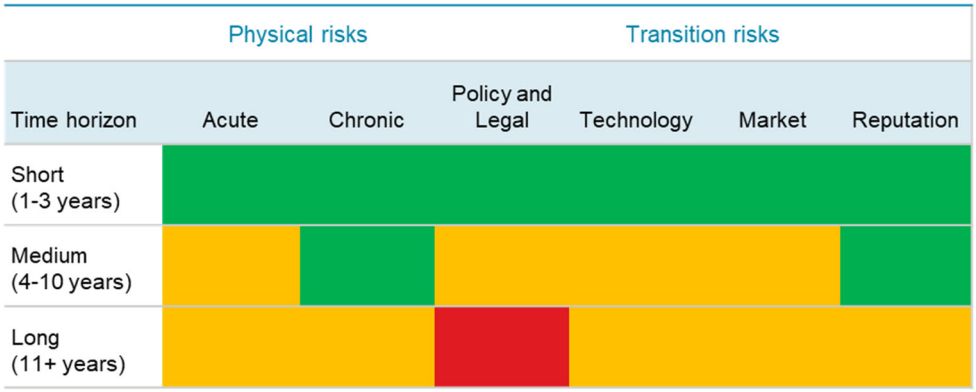
Source: Investment manager.

Physical risks
The Plan's active credit investment manager does not expect any material climate-related financial risks in either the short or medium-term. However, when approaching the long-term horizon, risks associated with extreme weather events are likely to cause business interruptions and have higher financial costs for issuers in the market if these climate change impacts are not addressed.

Transition risks
The investment manager considers the transition risks to be minimal in the short-term but realises these risks will become more significant as time passes. Reputational risks in the medium to long-term are likely to become more material, arising from increasing customer demand to address climate change and reputational damage if companies do not operate sustainably. Policy and Legal risk are deemed to be a low risk even when approaching the long-term horizon. The investment manager acknowledges the increased pressure of the government, investors, regulatory policy in the long-term but states the impact for this is expected to be limited at the portfolio level.

Property

The table below is applicable for the Plan's investment in property, via pooled investment vehicles, which **forms approximately 10%** of the overall DB Structure's invested assets.



Source: Investment Managers, Aon.

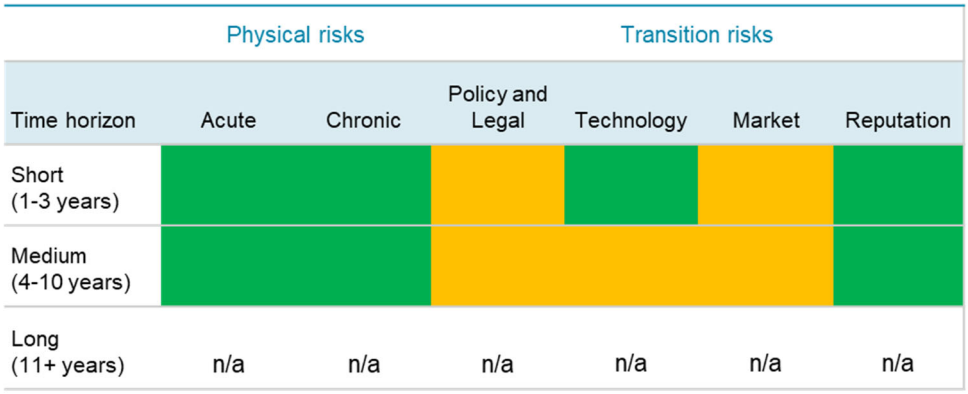
Physical risks
The Plan's property investment managers do not see material acute or chronic physical risks in the short- or medium-term. Over the long-term, the investment managers see rising temperature and rising sea levels as more material and understand that property will need to adapt to changing climates, with potentially expensive retrofitting for adaptation. Further to this, uncertainty around future climate impact could cause some geographies to be 'uninsurable' and result in write-offs of productive assets.

Transition risks
The Plan's investment managers broadly do not identify any material transition risks in the short-term. Policy and legal risks heighten over the medium-term as building related legislation is expected to become more stringent. However, it's worth noting that both the short- and medium-term reputational risks have improved since last year. Over the long-term, the investment managers identified these risks to become more significant as consumer demand evolves and growing litigation risk (both direct and from divestment decisions).

Private Debt and Equity

Currently the Plan has four managers across the DB Structure investing in private debt and private equity which make up **approximately 17%** of the overall DB Structure's investments. Two of the managers were unable to provide risks and opportunities data at the time of reporting. One investment manager was unable to provide RAG ratings for the relevant fund, however, it did provide detailed information regarding its identification and management of climate-related risks and opportunities.

The final manager – a private debt manager – was able to both quantify the potential impact of climate-related risks on the underlying assets and provide narrative around these, with the table below solely reflecting this mandate.



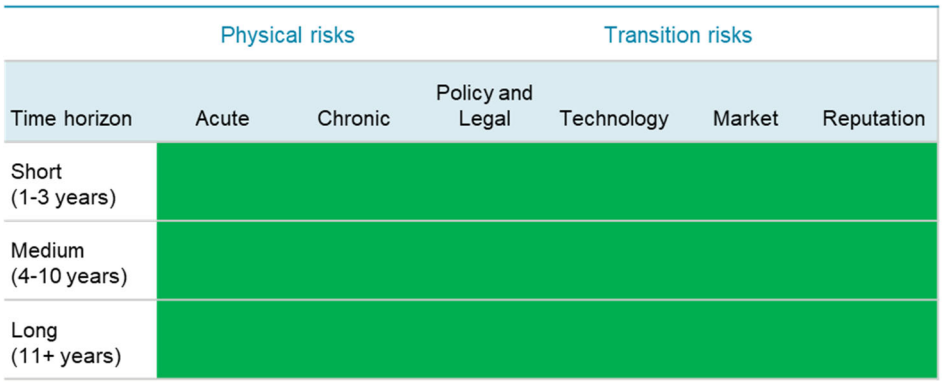
Source: Investment Manager. Notes: Due to the nature of the fund's investment time horizon, long-term risks are 'not applicable', as represented by the 'n/a' throughout the long-term in the table above.

Physical risks
The Plan's private debt investment manager has identified no material physical climate associated risks in the short-term. The investment manager has recognised supply chain disruption and rising costs of materials as a result from extreme weather events but has indicated this presents a low level of financial exposure for private debt instruments. Due to the nature of investment horizon for the private debt investment manager, long-term risks do not apply. The private equity managers did not provide any narrative around the physical risks that could be included in this report.

Transition risks
The Plan's private debt investment manager considers the transition risks to be minimal in the short-term but more significant as they approach the medium-term. Reputational risks such as negative stakeholder feedback and changing customer preferences represent a low-level risk in the short- and medium-term. Due to the nature of investment horizon for the private debt investment manager, long-term risks do not apply.

Corporate Bonds

The table below is applicable for the investments in corporate bonds which **comprise approximately 6%** of the DB Structure's total invested assets. The table below reflects the Trustee's investment in the Sustainable Development Goals ("SDG") Credit Fund, replacing the existing managers. The SDG Credit Fund was implemented in January 2024



Source: Investment Manager

Physical risks
The investment manager has identified no material physical climate-related risks in the short- medium-and long-term. The manager bases its RAG assessment on internal and external scenario and sensitivity analysis, which identified low risks across all time horizons. Within the manager's physical risk analysis, it assesses

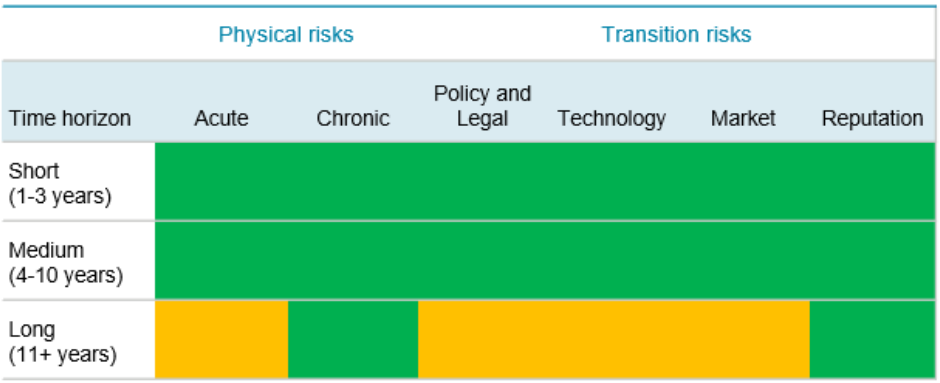
Transition risks
The investment manager has identified no physical climate-related risks as material in the short- medium-and long-term. The manager bases its RAG assessment on internal and external scenario and sensitivity analysis, which identified low risks across all time horizons. The manager notes that reputational

the long-term physical risks as the adverse physical impacts of decarbonising increases in the long-term.

risks are low given the portfolio's largest exposure is to the financial and industrial sector. Given the manager's active engagement with these underlying companies, it believes the reputational risk associated with climate change risk is mitigated.

Gilts

The table below is applicable for the investments in gilts which **comprise approximately 24%** of the DB Structure's total invested assets.



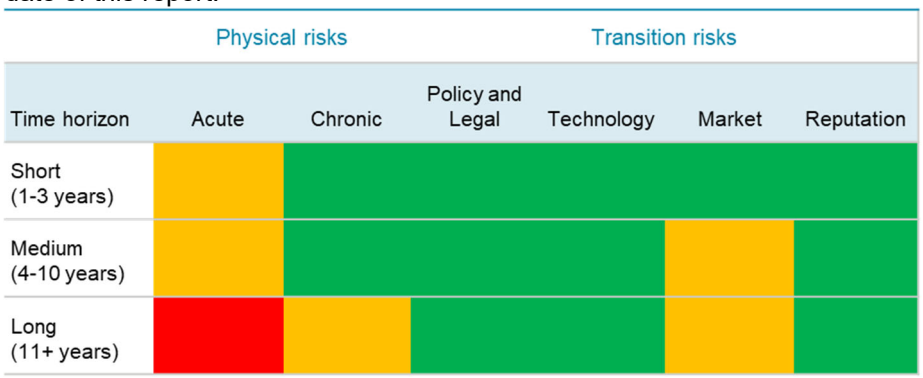
Source: Investment Manager

Physical risks
The investment manager has identified no physical climate-related risks as material in the short- and medium-term. However, as we approach the long-term the manager believes that as extreme weather events become more frequent and severe the impact of these physical risks, both acute and chronic are likely to become more significant. These risks can cause business interruptions with global interconnected supply chains, dragging down economic performance and sovereign bond valuations. Therefore, the investment manager views physical risks to be material at the global sovereign bond portfolio level in the long-term. The investment manager notes these risks are present for chronic physical risks but to a lesser degree resulting in a lower risk rating, an improvement to last year.

Transition risks
The investment manager considers there to be no material short-term transitional risks. In the medium-term the manager has seen an improvement across policy and legal, market, and reputational risks in comparison to the analysis last year. The investment manager believes that approaching the long-term, the risks associated with future pricing, upfront costs, supply and demand mismatch will become more apparent leading to an amber rating. Reputational risks in the long-term are considered to be a low-risk, however if climate policy is not addressed sufficiently, social unrest and political instability is likely to become a material risk.

Infrastructure

The table below is applicable for the Plan's investment in infrastructure, via the Copenhagen Infrastructure Partners Fund V. Whilst funding isn't expected to begin until mid-2024 and hence **does not currently make up an allocation** of the overall DB Structure's invested assets, the Trustee has decided to include this fund to ensure a comprehensive analysis for the Plan's report given the fund has made a number of underlying investments at the date of this report.



Source: Investment Manager

Physical risks
The Plan's infrastructure investment manager has identified material acute physical risks across all time horizons. The fund has taken on an onshore wind project in Illinois, which at the time of completion is expected to deliver financial returns that could be affected by connective storms, floods, and earthquakes. Future exposure towards physical risks is not expected to change, other than in relation to new investments made by the fund. In these cases, the Plan's manager will attempt to make investment which are in accordance with the risk appetite of the fund. Based on the current portfolio, the manager faces little exposure to chronic physical risks across the time horizons. This will change in the future, as new investments in new geographic locations and utilizing different technologies are committed to by the fund.

Transition risks
The Plan's infrastructure investment manager has identified no material transitional climate associated risks in the short-term. In the future, there is the expectation that exposure to transitional risks remains low. The Plan's investment manager does acknowledge potential market risks as the fund will need to obtain offtake agreements, project finance and insurance all of which could be exposed to changes in financial markets.

DC Structure

The statutory guidance issued by DWP requires trustees of DC schemes to undertake climate strategy activities for each 'popular arrangement offered'. For the Plan this would mean the two default arrangements – the BlackRock LifePath Flexi & Capital Funds – would be in scope.

Although it does not meet the requirements for a popular arrangement, the ISC has decided that the CNPP Global Equity Fund should be included within the report. This is the fund with the greatest interest within the Plan's self-select range, chosen by hundreds of members, making up approximately 9% of the total self-select assets under management. As such, the Trustee believes it warrants more detailed monitoring by being included within the TCFD report.

The Plan's default arrangements – BlackRock LifePath Flexi & Capital – are Target Date Funds in which the asset allocation de-risks over time as members approach retirement. Day-to-day management of assets and ongoing asset allocation decisions are delegated to BlackRock as the asset manager of the Target Date Fund. As such, the Trustee is more limited in the DC Structure than in the DB Structure in relation to the climate-related enhancements it can directly implement.

LifePath Funds

The underlying building blocks of the BlackRock LifePath strategy are index tracking funds; however, the strategy retains the ability to change the asset allocation and indices being tracked. BlackRock take a long-term strategic asset allocation view (10yrs+) in terms of the implementation of their portfolios. BlackRock do this through their climate aware market assumptions generated by 'Aladdin Climate', a BlackRock portfolio management tool, which is used to calculate climate risk in portfolios. It allows portfolio and risk managers to see climate-adjusted analytics alongside standard datasets as they make decisions regarding the asset allocation's exposure to climate risks.

Climate risk is considered across all asset classes included within the LifePath funds. Where possible the portfolio manager has switched to an ESG-screened index. As at 30 December 2023, more than 75% of the LifePath strategies were invested in "building blocks[1]" with explicit ESG related considerations, specifically in optimised and screened funds. This has increased from approximately 63% as at the end of December 2022. Examples of these ESG related allocations are as follows:

- ACS World ESG Equity Tracker Fund
- ACS World ESG Screened Index Fund
- ACS World Small Cap ESG Screened Fund
- iShares ESG Sterling Corporate Index Bond Fund

The underlying indices of these funds are constructed through an optimisation process that aims to maximise exposure to ESG factors by targeting

[1] A "building-block" provides one piece of a broader portfolio. It typically references a benchmark, focuses on a specific universe of securities, and contributes to the goals of the overarching portfolio.

companies with high MSCI ESG ratings[2] in each sector. The MSCI ESG Rating is created by MSCI, a global financial markets data provider and seeks to measure and assess a company's management of financial ESG risks.

In the equity-heavy, longer-dated vintages, there is a higher percentage of assets (approximately 90%+) that are invested in the sustainable building blocks. BlackRock are working to improve these proportions as part of their evolving ESG efforts.

In February 2023, BlackRock included an evolved index methodology for developed market and small cap equities. Additionally, they are exploring evolving the emerging market equity allocation going forward. This means more of the equity allocation of the LifePath arrangements are anticipated to have an ESG tilt.

CNPP Global Equity Fund

This fund is a white labelled name for the Aquila Life (50:50) Global Equity Fund. The aim of the fund is to track a range of underlying indices, which are baskets of geography specific global equities, each weighted on a market capitalisation basis. As part of the triennial review, which was completed in December 2023, it was determined that the self-select range offers sufficient choice across the risk and return spectrum for members who wish to make their own investment decisions. The CNPP Global Equity Fund forms part of this self-select range. This review also factored in the continued appropriateness of the other white-labelled fund names which were confirmed to remain appropriate.

For index tracking investment mandates such as this, the manager does not have discretion to add or remove securities. Integration of climate-related risks is therefore addressed through:

- Engagement and collaboration with index providers.
- Transparency, including reporting on sustainability-related characteristics of all strategies.
- Investment stewardship activities, which are undertaken across all investment strategies invested in corporate equity and debt issuers.

ESG risk within the CNPP Global Equity fund can be explored further by reviewing the underlying index being tracked by the fund and/or exploring other passive/active mandates to replace the Aquila Life (50:50) Global Equity Fund under the white label.

[2] MSCI ESG Ratings are a rules-based methodology to identify industry leaders and laggards according to their exposure to ESG risks and how well they manage those risks relative to peers. Source: https://www.msci.com/our-solutions/esg-investing/esg-ratings

Climate-related opportunities – DB Structure

We have identified some climate-related opportunities which may be suitable for the Plan, which are included in the table below.

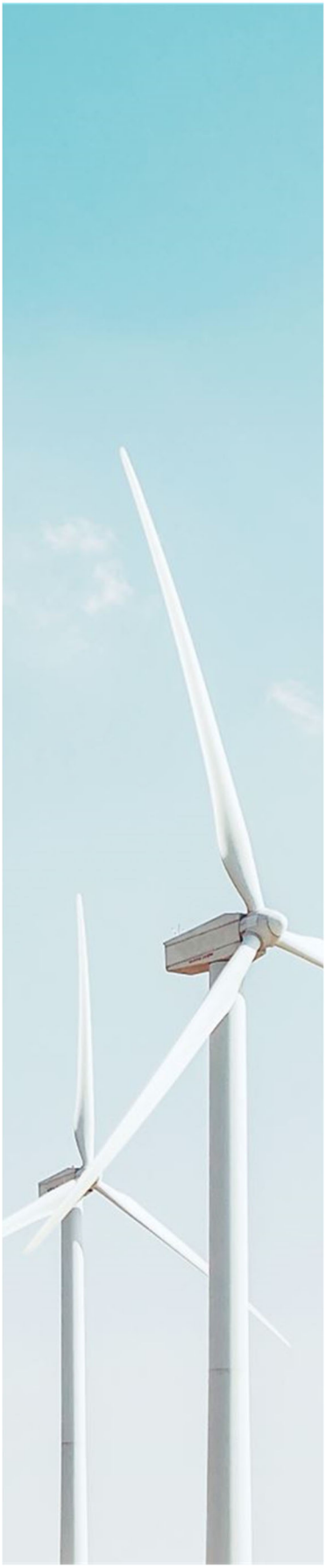
As outlined in the SIP, in appointing new active investment managers, the Trustee will explicitly consider the investment managers' ability to integrate the consideration of ESG factors within their investment process.

This will include (where relevant) the investment managers' consideration of climate-related opportunities. The Trustee believes it is important to be proactive and take advantage of any such climate-related opportunities, to preserve and enhance the value of assets in future.

Equity	The Plan's equity manager recognises that as electric vehicles ("EV"s), renewables and other alternative fuels become cheaper relative to conventional alternatives, companies have the opportunity to benefit significantly from the growth. Those companies that are formulating effective transition plans today and committing the required capital are among the most likely to benefit. Technologies like solar energy, wind energy and EVs are already cheaper than traditional alternatives in certain contexts and will likely continue growing. Beyond existing low-carbon technologies, potential innovative solutions may also present opportunities. These include carbon capture and storage, direct air capture, low- or zero-carbon 'green' hydrogen and ammonia production, and nature-based solutions. The Plan's equity manager notes that volume growth and investment returns are not intrinsically correlated and that thematic focus on constraints will be required to protect returns. The manager has identified three areas which investors should consider regarding targeted investment strategies: geological scarcity, technological innovation, and regulatory change.
Property	The Plan's property managers have identified the following approaches to capitalise on opportunities over time: ▪ Seeking revenue opportunity from demand for lower-carbon products and services and products with enhanced sustainability performance. ▪ Refurbishments which seek to minimise environmental, social and climate risk impacts and maximise the creation of economic opportunities in the local community. Increasing recourse efficiency by reduced operational costs, through a focus on energy, water, and waste efficiency, in a move to more efficient buildings.
Active Credit	The Plan's active credit investment managers identified an increasing amount of issuance of green bonds, sustainability-linked bonds, and loans with sustainability-linked margin ratchets. Disclosure from issuers is improving steadily particularly in global high yield debt that allows further analysis of sustainability profiles of issuers and analysis of decarbonisation profiles of issuers.

Corporate Bonds	The Plan's corporate bond manager recognised that the key focus of their credit analysis is the cash-generating capacity of the issuer, the quality of the cash flows, and the ability to repay debt.
Private Debt	Following assessment of the physical and transitional risks, the Plan's managers outlined the following areas for potential investment opportunities: ▪ Resource efficiency, as certain direct lending targets may benefit from reduced operating costs and increased production capacity. ▪ Use and development of new technologies is also relevant to future opportunities in the products & services and markets segments. The development of climate adaptation solutions and technologies may result in increased revenue through superior competitive positioning and demand for such adaptation solutions. The implementation and development of new technologies may also result in increased revenues through the access to new markets. ▪ Energy source opportunities are potentially significant for direct lending targets. Increased use of lower carbon-intensive energy sources may lead to several positive outcomes, including: reduced costs, reduced exposure to increases in fossil fuel prices and fossil fuel-dependent inputs, reduced GHG footprint (and subsequent positive reputational benefits), less sensitivity to a carbon price and increased capital availability.
Gilts	The Plan's investment manager recognises that beyond the low-carbon technologies already in use today, there are also many potential innovative solutions that could present opportunities in the orderly and disorderly transition scenarios. These include carbon capture and storage, direct air capture, low- or zero-carbon hydrogen and ammonia production, and nature-based solutions. However, the manager notes that sovereign bonds are shielded from some of the downside risk from a low-carbon transition compared to equity investors, so will therefore be unable to profit as much from the upside risk of climate-related opportunities.
Infrastructure	The Plan's sole infrastructure manager recognises that climate-related economic, market and regulatory impacts are one of their primary value drivers. The manager seeks to contribute directly to climate change mitigation through investments in activities which facilitate or form part of the renewable energy transition, examples include large and complex renewable infrastructure, including technologies focusing on integration of renewables such as storage and transmission.

Source: Investment Managers



Climate-related opportunities – DC Structure

ESG policy: A formal ESG policy, which includes a climate objective and other sustainable related objectives, was effective from 7 December 2022. The LifePath funds aim to target an absolute reduction of 50% in carbon emissions intensity score over a 10-year period starting in June 2019.

ESG integration: A whole portfolio approach is taken to any investment decisions with any changes guided by a set of principles which include, but are not limited to, avoiding any significant divestments from any single asset class or region, reducing the carbon emissions intensity of the portfolios and considering the broader sustainable features (S and G) whilst meeting the current investment objective, and limiting associated costs. Additionally, members' demand and interest in more ESG tilted self-select funds are being considered and will continue to be going forward.

Sustainable building blocks: LifePath's ESG approach focuses on selecting investment vehicles such that the risk and performance do not significantly deviate from that of the traditional benchmark over the long-term. Optimised strategies aim to maximise portfolio exposure to better ESG performers while closely tracking parent indices, whilst screened indices avoid exposure to specific companies and/ or sectors associated with objectionable activities.

Portfolio decarbonisation: BlackRock's research priority for LifePath UK is focused on assessing portfolio emissions at the whole portfolio level to assist the ongoing reduction in the carbon emissions intensity of the portfolio. Much of the focus so far has been on deepening their understanding and developing their data and analytical capabilities to be able to facilitate further ESG integration and portfolio decarbonisation in the coming months and years.

How resilient is the Scheme to climate change?

The Trustee has carried out climate change scenario analysis to better understand the impact climate change could have on the Plan's assets and for the DB Structure, the liabilities and covenant (and therefore funding position).

The analysis considers three climate change scenarios. The Trustee chose these scenarios because it believes that they provide a reasonable range of possible climate change outcomes.

Each climate scenario considers what may happen to the Plan when transitioning to a low carbon economy under different temperature-related environmental conditions. Consistent scenarios have been considered by the Plan's different advisers; Aon for the DB Structure, Cardano for the covenant and Redington for the DC Structure. The Trustee notes that the scenarios are only illustrative and are subject to considerable uncertainty.

The climate scenarios intend to illustrate the climate-related risks the Plan is currently exposed to, highlighting areas where risk mitigation could be achieved through changing the investment portfolio.

Other relevant issues such as governance, costs, and implementation (including manager selection and due diligence) must be considered when making changes to the investment strategy.

Investment risk is not the only risk that Plan faces. Other risks include covenant risk, longevity risk, timing of member options, and operational risks.

Trustee update

Under the Regulations, climate scenario analysis must be carried out at least every 3 years, with an annual review in interim years. Circumstances which may require the climate scenario analysis to be re-done. This may be as a result of, but not limited to:

- a significant/material change to the investment and/or funding strategy; or
- the availability of new or improved scenarios or modelling capabilities or events that might reasonably be thought to impact key assumptions underlying scenarios.

The Trustee reviewed the scenario analysis completed as at 31 March 2022, (based on assumptions at 31 March 2021) and has taken the decision to refresh the analysis. This decision was driven by a material change in the investment strategy for a number of sections.

Impact Assessment – DB Structure

Key conclusions

Overall, we are comfortable with the level of resilience exhibited by the investment portfolios and presently do not intend to make any changes to the investment strategy as a result of this analysis. The Trustee will continue to consider this analysis as part of any future changes made to the investment strategy or underlying investment managers used to implement this.

The Plan's investment portfolio exhibits reasonable resilience under the climate change scenarios considered. The Trustee noted that there was some variation between the different investment strategies and scenarios considered within each Group.

The resilience to the scenarios is as a result of high funding level at the start of the period of analysis, the diversification of assets, and inclusion of assets which aim to provide some degree of protection against Environmental, Social and Governance ("ESG") risks or risks posed by the transition to a low carbon economy.

To undertake the scenarios in an efficient manner, the analysis was based on the following strategic allocations, reflective of the asset allocations adopted by all of the underlying sections within the Plan.

- Group 1: Sellafield, Magnox and LLWR
- Group 2: GPS DRS and Nexia
- Group 3: GPS SLC, Closed and Nirex

Asset Class	Group 1	Group 2	Group 3
Global Equities	26.3%	17.5%	10.0%
Property	7.9%	5.3%	3.0%
Active Credit	10.5%	7.0%	4.0%
Private Debt & Equity	21.9%	13.3%	7.0%
Corporate Bonds	5.0%	10.0%	15.0%
Infrastructure	3.5%	2.0%	1.0%
Gilts	25.0%	45.0%	60.0%

Analysis is based on the strategic allocation as at 31 December 2023. Totals may not sum up to 100% due to rounding.

What do the charts show?

The charts shown as part of the analysis show what might happen to that section's funding level under each climate scenario up to 20 years into the future. Each line represents a different scenario. The actual funding experience is likely to be different in reality.

The funding level is a measure of how much surplus assets (or deficit) the sections have above the cost of the pension liabilities.

Depending on the scenario, the funding level increases more or less. Under some scenarios the funding level experiences sudden falls.

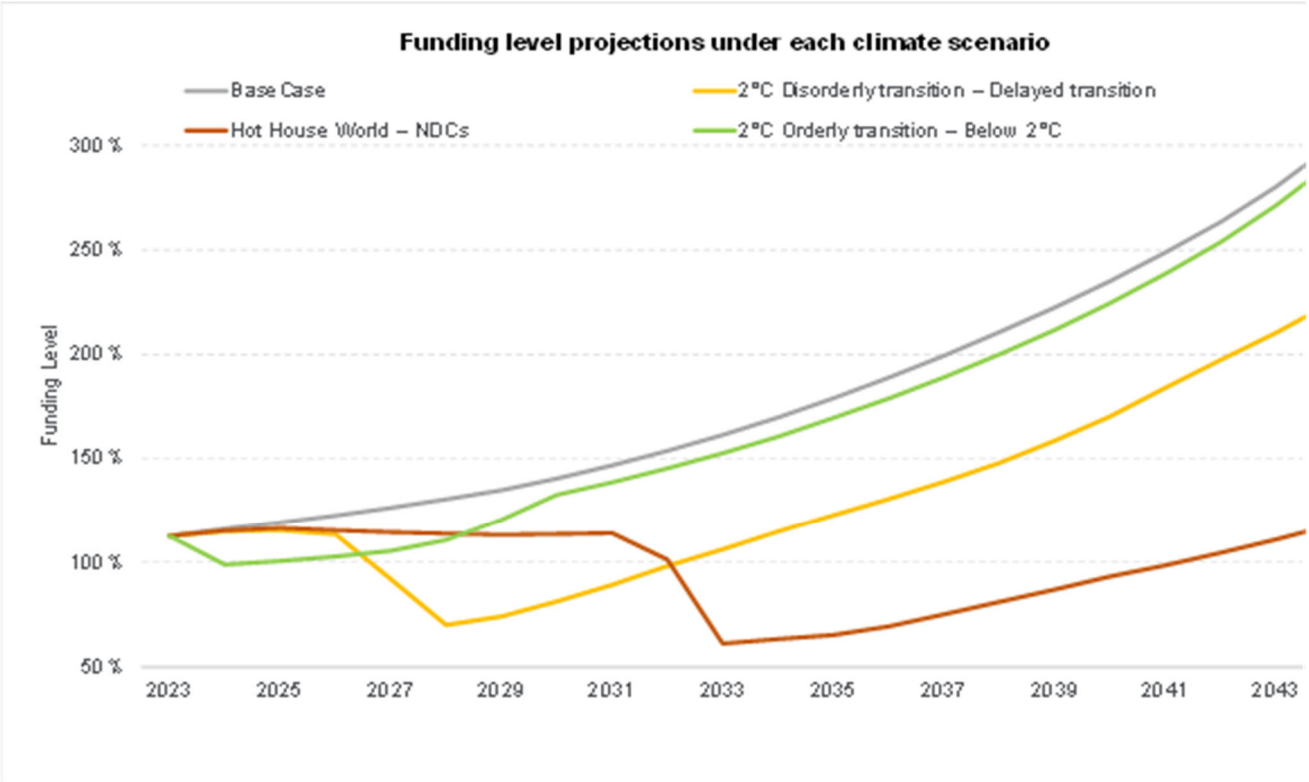
Additional Information

Please note that the projection for the sections is approximate, based on the strategic allocation of each and assuming a 20-year projection where the Plan's strategy remains unchanged.

These projections are therefore approximate for the purposes of comparing outcomes under the different climate scenarios.

The outcome of the analysis from the impact assessment is set out in the charts and tables below on pages 30-34. The tables describe the impact of each scenario on each of the three Groups over the short-, medium- and long-term time horizons. The climate scenarios are compared relative to a "base case" scenario – which reflects financial markets' current pricing of climate-related action and risks.

Funding level projections under each climate scenario – Group 1



Source: Aon. Scenario projections as at 31 December 2023

Group 1

Hot House World – Nationally Determined Contributions ("NDCs")

Temperature rise
<3°C

Reach net-zero
After 2050

Environmental regulation
Late and Aggressive

Summary of the Scenario

In the short-term:

Insufficient consideration given to long-term policies and there is no action taken to combat climate change.

In the medium-term:

Late but coordinated action is taken to tackle climate change. The late timing means it is less effective and more costly to implement. Adverse impacts from climate change lead to a drag on risk assets.

In the long-term:

After the costly implementation to tackle climate change and the resulting drag on risky assets, the transition to clean technologies and green regulation begins to boost economic growth when considering the very long-term. However, the late and disorderly climate transition means that physical climate risks also remain prominent over the very long-term.

Summary of the impact to the Plan

In the short-term:

Initially, there is no impact on the Plan's funding level, as it is expected to follow the base case. The funding level remains above 100%.

In the medium-term:

The funding level begins to lag the base case. Towards the end of the medium-term, the Plan experiences a sharp decline in the funding level and moves into deficit. This may place a strain on the sponsoring employers should they be required to make up any funding shortfall.

In the long-term:

Whilst the funding level is expected to recover by the end of the period considered for the modelling, moving back into surplus, this leaves the Plan materially worse off versus the base case. This is the worst potential outcome for the Plan.

2°C Orderly transition – Below 2°C Temperature rise 1.3°C - 2°C Reach net-zero 2050 Environmental regulation Coordinated	Summary of the Scenario **In the short-term:** Immediate coordinated global action is taken to tackle climate change. Risky assets perform poorly. **In the medium-term:** The rapid transition to clean technologies and green regulation begins to boost economic growth. **In the long-term:** The rapid transition to clean technologies and green regulation continues to boost economic growth. This represents the fastest transition to a green economy, combined with limited physical impacts from climate change despite the large initial transition cost.	Summary of the impact to the Plan **In the short-term:** The Plan suffers an immediate deterioration in funding, however, is expected to remain close to fully funded. **In the medium-term:** The funding level begins to recover following an initial fall, as asset classes such as equity and credit, benefit from the economic growth. **In the long-term:** The Plan continues to recover over the long-term and remains well funded by the end of the 20-year modelling period, however, this does lag the base case. This is expected to be the best outcome for the Plan.
2°C Disorderly transition – Delayed transition Temperature rise 1.5°C - 2°C Reach net-zero 2050 Environmental regulation Aggressive	Summary of the Scenario **In the short-term:** Despite growing public awareness, material action is not undertaken to combat climate change. **In the medium-term:** Increasing effects of extreme weather leads to a rapid introduction of policies to tackle climate change. The delayed action leads to higher costs to tackle climate change and risky assets perform poorly as a result. The higher costs are the result for the economy being forced to transition away from fossil fuels. **In the long-term:** Following rapid action in the medium-term, the longer-term benefits from tackling climate change lead to higher growth.	Summary of the impact to the Plan **In the short-term:** There is no initial risk to the Plan's funding level, as it is expected to broadly follow the base case. **In the medium-term:** The Plan's funding level experiences a sudden fall after around five years, dropping below the base case and into deficit. This may place a strain on the sponsoring employers should they be required to make up any funding shortfall. **In the long-term:** In the long-term, the funding level recovers from the drop in funding experienced in the medium-term, moving back into surplus which increases over time. However, this is expected to lag the base case.

Source: Aon. Effective date of the impact assessment is 31 December 2023

Funding level projections under each climate scenario – Group 2 and Group 3

The Trustee modelled a further two strategies, one for Group 2 and one for Group 3. These strategies both exhibited resilience under the climate scenarios considered. Over the long-term, the Groups are expected to remain in surplus, and for Group 3, it is expected that this remains in surplus over all the time periods considered for each scenario.

This conclusion was reassuring to the Trustee and can be attributed to a combination of the diversification of assets, investing in assets which provide protection against ESG risks and that these two strategies (i.e. those used to model Groups 2 and 3) have higher levels of hedging against changes in interest rates and inflation compared with Group 1. As these Groups have a lower allocation to risk type assets (equity, private equity, credit etc), the fall in funding level experienced under the Hot House World Nationally Determined Contributions scenario ("Hot House World") is expected to be less than that experienced for Group 1. The detailed analysis for Groups 2 and 3 is included in the Appendix.

Modelling limitations

Please refer to the Appendix for further details in relation to the assumptions used for the scenario analysis and its limitations.

Covenant Impact Assessment – DB Structure

The Plan's covenant adviser, Cardano Advisory, has provided an assessment of the possible impact of the climate scenarios being considered for the Plan's 2024 TCFD report on the employer covenant and whether climate related risks are materially different from those identified in the 2022 and 2023 assessments.

The sections of the Plan are supported by different entities within the Nuclear Decommissioning Authority ("NDA") Group. However, the majority are supported by the NDA, which is charged on behalf of the UK government with the mission to clean-up the UK's nuclear sites safely, securely and cost effectively. There are other pension liabilities of the NDA Group (for example, Direct Rail Services ("DRS") is responsible for GPS DRS liabilities). In order to be proportionate and to focus on the most material elements and in line with previous assessments, the covenant adviser focused its climate exposure analysis on the NDA (Group 1) and DRS (Group 2).

The covenant adviser undertook its analysis by considering three scenarios based on the NGFS phase IV scenarios, covering a plausible range of scenarios which could materialise. These are an Orderly Transition Below 2ºC scenario ("Orderly"), which gives a 67% chance of limiting global warming to below 2ºC, a Delayed Transition ("Delayed") in which emissions do not decrease until 2030 as new policies are implemented belatedly and abruptly, with high variation in the stringency of policies between regions, and a Hot House World, which includes all existing commitments and pledges and results in higher physical risks due to a peak warming temperature of 2.4ºC.

Conclusion of analysis

The Group's key employers (NDA - Group 1; and DRS - Group 2) are, to an extent, shielded from the financial impact of climate change risks by virtue of their quasi-governmental nature. However, to inform the Trustee in setting climate strategy and risk management, the covenant adviser adopted a risk-focused approach to identify potential downside climate exposure under all scenarios considered.

Group 1: Principle climate risks identified

The key risks identified by the covenant adviser included:

1. **Orderly and Delayed Transition scenarios:**
    a. Supply chain resilience, including cost and scarcity of key raw materials – for example, the risk of sand, a key concrete component, becoming more difficult and costly to source with increased restrictions and reduced availability, when demand is expected to continue to increase in the foreseeable future;
    b. Extreme weather events and water scarcity impact on operations – risk that operations and sites are disrupted by acute and chronic physical risks, such as flooding and heatwaves; and
    c. Macro-economic risks – increased risks from macro-economic environment worsening from an already high inflationary environment with increased fiscal pressures.

2. **Hot House World:**
    a. Supply chain resilience, including cost and scarcity of key raw materials – for example, the risk of sand, a key concrete component, becoming more difficult and costly to source as a result of over production coupled with extreme weather events exacerbating commodity scarcity, against a context where demand is expected to continue to increase in the foreseeable future;
    b. Extreme whether events and water scarcity impact on operations – risk that operations and sites are disrupted by acute and chronic physical risks, such as flooding and heatwaves; and
    c. Overall, more pronounced physical risk exposure, with lower transition risks, as compared to the low-warming scenarios (i.e. Orderly and Delayed Transitions).

Group 1: Summary risk analysis

- **Near-term (1-3 years):** Greater risk in the Hot House World scenario, mainly as a result of supply chain risks linked to the sourcing and pricing of construction materials, coupled with increased risks from extreme weather events and a challenging macro-economic environment.
- **Mid-term (4-10 years) and long-term (>11 years):** risks are more pronounced, particularly under the Delayed Transition and Hot House World scenarios, mainly due to increased supply chain constraints as a result of demand outstripping supply for certain key commodities, such as sand, coupled with an increase in the frequency and magnitude of extreme weather events, which would create a negative feedback loop, increasing commodity prices further.

The covenant adviser assessed that the risks were generally greater over the longer-term as compared to the near-term.

Group 2: Summary risk analysis

In the near-term, the main risk for DRS appears to be the potential cost involved in developing a more environmentally friendly fleet, particularly under an Orderly Transition scenario. In the mid-term, the resilience of the UK rail network is also a major risk under all three scenarios considered, mainly due to the potential disruption caused by chronic physical risks (e.g., higher temperatures) as well as the impact from extreme weather events.

In the mid and long-terms, DRS will face increased climate-related risks, especially under a Hot House World scenario. This is mainly due to the impact from extreme weather events, which are expected to increase significantly in frequency and magnitude and will require material capital expenditures to avoid disruption to the network and operations.

Impact Assessment – DC Structure

Due to developments in industry-wide best practice, Redington have adopted an alternative approach to scenario analysis and the underlying methodology used, in comparison to the Plan's first two TCFD reports. The Trustee has approved the adoption of this scenario analysis, to those developed by the NGFS from the previously used PRA stress tests, with further detail provided below.

Additionally, to align with the timings of the DB Structure scenario analysis update, the scenario analysis has also been updated for the DC Structure.

Introduction to NGFS:

- The NGFS has developed five climate scenarios, which cover the broad spectrum of transition and physical risks that investors face. For the Plan, we have provided scenario analysis based on three of the scenarios that align to the DB Structure scenarios carried out by Aon.
- The PRA methodology was used in the Plan's Year 1 and Year 2 TCFD reports. Whilst there is a high degree of overlap between the PRA and NGFS tests, NGFS tests have increasingly come to be seen as the leading reference scenarios and offer greater granularity of analysis. Furthermore, PRA tests are no longer being updated, whilst NGFS tests are, meaning that the NGFS tests offer greater dynamism and will remain relevant as scientific and industry developments evolve. Although there are several shortcomings around the NGFS methodology, it is still seen as more relevant compared to PRA, and it will be improved over time.
- DC Structure NGFS Scenario Narratives: The NGFS partnered with an expert group of climate scientists and economists to design a set of hypothetical scenarios – these scenarios aim to provide a reference point for understanding how climate change (physical risk) and climate policy and technology trends (transition risk) could evolve in different future scenarios. The scenario analysis relative loss (%) reflects the physical risk and transition risk.

2°C Orderly Transition
Below 2°C

Gradually increases the stringency of climate policies, giving a 67% chance of limiting global warming to below 2°C.

Assumes climate policies are introduced immediately and become gradually more stringent though not as high as Net Zero 2050.

Lower transition risk
Lower physical risk

2°C Disorderly Transition
Delayed transition

Assumes annual emissions do not decrease until 2030. Strong policies are needed to limit warming to below 2°C. CO2 removal is limited.

Assumes global annual emissions do not decrease until 2030.

Higher transition risk
Lower physical risk

Hot House World
Nationally Determined Contributions (NDCs)

Includes all pledged policies even if not yet implemented.

Assumes moderate and heterogenous climate ambition reflected in the conditional NDCs at the beginning of 2021 continues over the 21st century (low transition risks).

Lower transition risk
Higher physical risk

Scenario Analysis Output:

DC Section – LifePath Flexi as at 31/12/2023:

To demonstrate the impact of each climate scenario on member outcomes, Redington has run the analysis on relevant asset allocation for three cohorts of CNPP members for the DC New Joiners Section (where LifePath Flexi is used as the default). These representative personas were updated in December 2023, with the next review in 2026.

It is important to note that the NGFS scenario analysis presented below is not directly comparable to the scenario analysis based on the PRA methodology in the previous two TCFD reports, as these are based on different assumptions and underlying methodology.

	Asset Growth Stage	Volatility Management Stage	Retirement Planning Stage
Straw-person Assumptions	**Sammy**	**Lisa**	**Paul**
Age	25	39	57
Retirement Age	65	65	65
Relative Loss (%)			
2°C Orderly Transition	11.4	10.8	7.3
2°C Disorderly Transition	29.5	28.2	19.9
Hot House World	9.9	9.4	6.4

- **Interpretation**: If the asset allocation remains as it is currently (i.e. BlackRock keep the asset allocation the same), Sammy's scenario result under the 2°C Orderly Transition shows a c.11% negative impact on her portfolio returns over the relevant time periods.
- The Lifepath Flexi default strategy de-risks out of equities into less risky assets, that have less climate-risk associated with them, and includes a large allocation to cash (which has no assumed climate risk) at retirement. Therefore, as expected, the range of relative loss under the stress scenarios is smaller for those closer to retirement than those in the asset growth stage.

SPPP Section – LifePath Capital as at 31/12/2023:

To demonstrate the impact of each climate scenario on member outcomes, Redington undertake the analysis on relevant asset allocation for two cohorts of CNPP members for the SPPP Section (where LifePath Capital is used as the default). These representative personas were updated in December 2023, with the next review in 2026.

The data below shows the impact of each of the scenarios by measuring the relative loss in % terms on each of the asset allocations.

	Volatility Management Stage	Retirement Planning Stage
Straw-person Assumptions	**Lisa**	**Paul**
Age	44	57
Retirement Age	60	60
Relative Loss (%)		
2°C Orderly Transition	9.9	6.5
2°C Disorderly Transition	26.1	17.5
Hot House World	8.6	5.6

Please note that a growth stage analysis was not carried out for the SPPP Section, as this would not be relevant for their membership.

- **Interpretation**: If the asset allocation remains as it is currently (i.e. BlackRock keep the asset allocation the same), Lisa's outcome under the 2°C orderly transition shows a c.10% negative impact of the current asset allocation over the time period, giving a present-day representation of the impact under this scenario.
- The Lifepath Capital default strategy de-risks out of equities into less risky assets such as government bonds and corporate bonds as members near retirement – these assets have less climate-risk associated with them, which is why the range of potential loss is smaller at the retirement planning stage.
- There is a larger allocation to cash within the Capital default range compared to the Flexi range, hence why **climate risk is lower for the LifePath Capital default than the Lifepath Flexi default.**

CNPP Global Equity Fund as at 31/12/2023:

Redington have modelled the impact on each of the climate scenarios on the relevant asset allocation for members invested within the CNPP Global Equity Fund. This fund is a white labelled name for the Aquila Life (50:50) Global Equity Fund.

To demonstrate the impact of each of the climate scenarios, Redington undertake the analysis on relevant asset allocation for the CNPP Global Equity Fund. The data below shows the impact of each of the scenarios by measuring the relative loss in % terms the asset allocation, as at 31 December 2023.

	CNPP Global Equity Fund
Relative Loss (%)	
2°C Orderly Transition	**13.3**
2°C Disorderly Transition	**38.8**
Hot House World	**11.9**

- **Interpretation**: If the asset allocation remains as it is currently, the scenario result under the 2°C orderly transition shows a c.13% negative impact of the current asset allocation over the time period, giving a present-day representation of the impact under this scenario.
- As the CNPP Global Equity Fund has 100% equity exposure across the UK and overseas, the stress test scenarios have a higher relative loss compared to the LifePath Flexi and Capital ranges, which have exposure to some equities as well as other asset classes which are less risky.
- The 2°C disorderly transition has the highest relative loss impact compared to the other scenarios, as expected.

Please refer to the Appendix for further details on the industry-wide concerns with scenario analysis methodology.

Risk management

We must have processes to identify, assess and manage the climate-related risks that are relevant to the Plan, and these must be integrated into the overall risk management of the Plan.

Reporting on our risk management processes provides context for how we think about and address the most significant risks to our efforts to achieve appropriate outcomes for members.

Our process for identifying and assessing climate-related risks

The Trustee has established a process to identify, assess and manage the climate-related risks that are relevant to the Plan. This is part of the Plan's wider risk management framework and is how we monitor the most significant risks to the Plan in our efforts to achieve appropriate outcomes for members.

Qualitative assessment

The first element is a qualitative assessment of climate-related risks and opportunities which is prepared by the Trustee's investment advisers and reviewed by the Trustee.

Quantitative analysis

The second element is quantitative in nature and is delivered by means of climate change scenario analysis, which is provided by the Trustee's investment advisers and reviewed by the Trustee.

Together these elements give the Trustee a clear picture of the climate-related risks that the Plan is exposed to. Where appropriate, the Trustee distinguishes between transition and physical risks. And all risks and opportunities are assessed with reference to the time horizons that the Trustee has identified as relevant to the Plan.

When prioritising the management of risks, the Trustee assesses the materiality of climate-related risks relative to the impact and likelihood of other risks to the Plan. This helps the Trustee focus on the risks that pose the most significant impact.

Trustee update

This process of identifying and assessing climate related risks has been reviewed in the process of producing this TCFD report and the Trustee believes that it is still suitable.

The Trustee's climate change governance framework

The Trustee recognises the long-term risks posed by climate change and has taken steps to integrate climate-related risks into the Plan's risk management framework.

The Trustee has developed the following climate change governance framework, to help with its ongoing management of climate-related risks and opportunities. The Trustee delegated a number of tasks, but still retains the final approval responsibility.

Governance

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Climate change governance framework *(this document)*	ISC	Aon / Redington / Cardano	Annual
Publish TCFD report	Secretariat/ Trustee	Aon / Redington	Annual
Add / review climate risks and activity on key Plan documentation (risk register, work plan)	ISC	Aon / Redington	Ongoing
ESG beliefs (including climate change)	ISC	Aon / Redington	Triennial
Trustee training	Secretariat	Aon / Redington / SPB	Ongoing
Review SIP	ISC	Aon / Redington	Annual
Publish Implementation Statement	Secretariat/ Trustee	Aon / Redington	Annual

Trustee update

The Trustee monitors the above activities as part of its ongoing management of the Plan's climate-related risks and opportunities.

The Trustee has delegated responsibility of a number of activities in this pillar, to the ISC, but the Trustee remains responsible for sign off of the final report. The Trustee has received training through the year to ensure it is familiar with the potential financial impact that climate change may have on the DB Structure's investment strategy and funding position, and also the DC Structure. Details of the training received are set out in the Governance section of this report.

The Trustee has monitored progress of the ISC and its respective implementation of the climate change governance framework through the year, receiving updates from the ISC and querying information as and when required.

Strategy

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Identify climate-related risks and opportunities (over agreed time periods) for investment & funding strategy	ISC	Aon / Redington / Cardano	Annual
Climate scenario analysis - annual review for the continuing suitability of the results	ISC	Aon / Redington	Annual
Climate scenario analysis - undertake modelling	ISC	Aon / Redington / Cardano	Triennial
Actuarial valuation	Trustee	Isio	Triennial

Trustee update

The ISC has dedicated time throughout the year to analyse climate-related risks and opportunities for the Plan's various asset classes in which it invests in. During the year, the Trustee invested some of the Plan's DB assets in a Sustainable Development Goals ("SDG") Credit Fund. The Fund uses a proprietary SDG measurement framework to select companies that contribute positively to the SDGs, whilst excluding those that do the opposite. For example, SDG 13 (one of the 17 SDGs) is to limit and adapt to climate change. With that, the Fund works to aid the transition towards decarbonising the overall portfolio and help manage climate-related risks within the Plan's investment strategy.

The Trustee also appointed a Renewable Energy Infrastructure Fund to aid in generating a positive impact on the portfolio's contribution to addressing climate change, with funding expected to begin mid-2024.

Alongside this, the Trustee also reviewed the appropriateness of the climate scenario analysis completed as at 31 March 2022, (based on assumptions at 31 March 2021) and took the decision to refresh the analysis. This decision was driven by a significant change in the Plan's investment strategy during the reporting year. The updated analysis for both the DB and DC Structures is included within the Strategy section of this report.

Risk management

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Identify, assess, and manage key climate-related risks	ISC	Aon / Redington / investment managers	Triennial

Trustee update

As a result of the regulations, the Trustee has incorporated climate related risks into its risk register and will incorporate any required changes to further documentation upon review.

The Trustee reviews its process of identifying and assessing climate related risks as part of the annual TCFD process in order to evaluate their continued suitability. This is integrated into the ongoing activities of the Plan, including the appointment of any new funds, and monitoring of existing funds for the DB Structure, and platform provider for the DC Structure.

The Trustee requests that investment managers provide details of how ESG is integrated within their decision-making process, including climate change; and details of outstanding ESG issues within portfolios. This is driven by the Plan completing its Implementation Statement, where the Trustee collects data from its managers in relation to their voting and engagement policies. It also asks for details how these have been implemented in practice, including key themes for engagement, including climate change.

Metrics and Targets

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Agree / review approach for metrics	ISC	Aon / Redington / investment managers	Annual
Agree / review target	ISC	Aon / Redington / investment managers	Annual
Obtain data for agreed metrics	ISC	Aon / Redington / investment managers	Annual

Trustee update

The Trustee, supported by the ISC and its advisers, collects metrics data on an annual basis in order to understand the current state of the portfolio regarding its emissions, data quality and portfolio alignment metric. This data is evaluated in order to produce a climate-related target.

Metrics collection has been carried out in line with industry practice. As the Trustee prepares its third climate disclosures report, it is required to report on scope 3 emissions, within its climate-related metrics. In addition, the Trustee has reviewed the target, which was set previously, and considered any refinements required to this. Further details can be found in the Metrics and Targets section.

Assessing our managers

As part of the assessment of the managers' policies and processes to assess climate-related risks, the Trustee has posed "top" questions as outlined in guidance from the Pensions Climate Risk Industry Group to its investment managers. The questions were designed to assist the Trustee with its assessment of each managers' capabilities and approach to climate management and focused on areas such as TCFD reporting, managers' ability to conduct climate scenario analysis, engagement, and escalation policies, managers' ability to provide carbon related data and align their strategies to a particular temperature level.

Key conclusions

Overall, the Trustee has seen an improvement in climate-related risk disclosures from its investment managers for the DB Structure. Some of the key highlights include:

- This year the Trustee received responses from all 10 investment managers.
- Most of the investment managers report in-line with TCFD-related disclosures and have produced a TCFD-aligned report. Four managers had produced TCFD-aligned reports previously, and this has now increased to nine managers.
- Only four managers were carrying out climate-related risks analysis last year and this has now increased to five with an additional manager expecting to carry out climate-related risk analysis in the future.
- Most managers now disclose on climate-related metrics and participate in several industry initiatives such as Net Zero Asset Manager ("NZAM") Initiative, Climate Action 100+ ("CA100+"), Institutional Investors Group on Climate Change ("IIGCC"), United Nations Principles for Responsible Investment ("UN PRI"), Science Based Targets Initiative ("SBTi") etc.

Whilst there has been a general enhancement in investment managers' responses and quality of evidence to the questionnaire, the Trustee acknowledges progress is still needed, particularly with managers conducting climate scenario analysis and aligning their strategies towards an explicit temperature alignment goal.
The Trustee will continue to engage with its managers to understand the future changes to the management of the Plan's assets, including the integration of climate-related risk analysis, improvements in GHG emissions reporting and temperature alignment and the associated timescales involved with these.

The table overleaf summarises the responses from the most material investment managers in the DB Structure.

DB Structure

Manager	TCFD aligned climate reports	Climate-related risks analysis	Industry initiatives	Carbon reporting	Temperature alignment
Aberdeen Standard	✓	✓	✓	✓	✓
Barings	✓	✓	✓	✓	-
Blackstone	✓	-	✓	In progress	-
Copenhagen	✓	-	✓	✓	✓
LGIM	✓	✓	✓	✓	✓
Partners Group	✓	In progress	✓	✓	In progress
CVC	✓	✓	-	✓	-
HPS	-	-	✓	✓	-
Robeco	✓	✓	✓	✓	✓
Threadneedle	✓	-	✓	✓	✓

Source: Investment Managers, Aon.

DC Structure

The Plan's default arrangements – BlackRock LifePath Flexi & Capital – are Target Date Funds in which the asset allocation de-risks over time as members approach retirement. Day-to-day management of assets (including climate risk management) is delegated to BlackRock as the asset manager of the Target Date Funds. BlackRock do this through their climate aware market assumptions generated by 'Aladdin Climate' a BlackRock portfolio management tool which is used to calculate climate risk in portfolios. Having undertaken a "climate risk management assessment" of BlackRock and the default Target Date Funds, the Trustee is confident in BlackRock's ability to manager climate risk on its behalf.

Since BlackRock implemented a formal ESG policy in December 2022 within the prospectus of the LifePath UK funds, there has been a 5% average increase in the ESG scores and a 33% average decrease in carbon emissions intensity relative to non-ESG benchmarks. BlackRock have illustrated progression in ESG integration over the last few years within the Plan's default arrangement.

Metrics & Targets

Metrics help to inform the Trustee's understanding and monitoring of the Plan's climate-related risks. Quantitative measures of the Plan's climate-related risks, in the form of both greenhouse gas emissions and non-emissions-based metrics, help the Trustee to identify, manage and track the Plan's exposure to the financial risks and opportunities climate change will bring.

Our climate-related metrics

The Trustee uses quantitative measures to help it understand and monitor the Plan's exposure to climate-related risks.

Measuring greenhouse gas emissions related to our assets is an effective method for the Trustee to assess its exposure to climate change. The Trustee, supported by its investment advisers, Aon and Redington, collected information from the Plan's investment managers on their greenhouse gas ("GHG") emissions. The investment advisers have collated this information to calculate climate-related metrics for the Plan's portfolio.

Measuring greenhouse gas emissions

Greenhouse gases are produced by burning fossil fuels, meat and dairy farming, and some industrial processes. When greenhouse gases are released into the atmosphere, they trap heat in the atmosphere causing global warming and contributing to climate change.

Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard.

Scope 1

All direct emissions from the activities of an organisation which are under their control; these typically include emissions from their own buildings, facilities and vehicles.

Scope 2

These are the indirect emissions from the generation of electricity purchased and used by an organisation.

Scope 3

All other indirect emissions linked to the wider supply chain and activities of the organisation from outside its own operations – from the goods it purchases to the disposal of the products it sells.

Scope 3 emissions are often the largest proportion of an organisation's emissions, but they are also the hardest to measure. The complexity and global nature of an organisation's value chain make it hard to collect accurate data.

For more explanation about GHG emissions, please see the Appendix.

Our climate-related metrics

These are the Plan's metrics and a summary of the methodology for each of these metrics – more granular detail is provided overleaf.

Total Greenhouse Gas emissions

The total GHG emissions associated with the portfolio. It is an absolute measure of carbon output from the Plan's investments and is measured in tonnes of carbon dioxide equivalent (tCO2e).

This year the Trustee was able to obtain scope 1&2 and scope 3 emissions from the managers separately.

Carbon footprint

Carbon footprint is an intensity measure of emissions that takes the total GHG emissions and weights it to take account of the size of the investment made. It is measured in tonnes of carbon dioxide equivalent per million pounds invested (tCO2e/£m).

This year the Trustee was able to obtain scope 1&2 and scope 3 emissions from the managers separately.

Data coverage

A measure of the proportion of the portfolio that the Trustee has high quality data for (i.e., data which is based on verified, reported, or reasonably estimated emissions, versus that which is unavailable).

This has been selected on the basis that it provides a consistent and comparable measure of the level of confidence in the data.

This year the Trustee did not need to make any estimation as the data was directly provided by the managers. Please note some managers used estimates of their data, details of which are not shared as part of this document.

Implied Temperature rise[3]

Implied temperature rise is a forward-looking metric that considers the pledges, commitments and business strategy changes that underlying investee companies/issuers have made. It provides a prediction of the potential temperature rise over the rest of the century based on the activities of those companies and issuers as a temperature score.

This metric gives the alignment of the Plan's assets with the climate change goal of limiting the increase in the global average temperature to 1.5˚C above pre-industrial levels.

It is measured as the potential global temperature rise associated with the GHG emissions from a portfolio, expressed in degrees Celsius.

[3] *Please note DWP guidance states that the trustee should not be aggregating the ITR, unless the same methodology has been used across the scheme's investments. Aon has relied on the individual manager data, hence the consistency of methodology cannot be guaranteed. Statutory guidance: Governance and reporting of climate change risk: guidance for trustees of occupational schemes - GOV.UK (www.gov.uk)*

DB Structure

The Plan's climate-related metrics

The table below summarises climate-related metrics for the Plan's assets over two of the reporting years.

Key observations

The Trustee acknowledges that the total GHG emissions have increased over the year. This is attributed to the higher data coverage and carbon footprint across scopes 1, 2 and 3 - particularly scope 3, which increased significantly, between 2022 and 2023. Year-on-year, total GHG emissions increased by approximately 103%; this was almost wholly attributable to the reporting of scope 3 emissions details by the Plan's equity manager, having not been able to report this in the prior year's report. As noted on page 47, scope 3 emissions are often the largest part of emissions and the most difficult to measure.

	Year	Total GHG emissions	Carbon footprint	Data coverage	Portfolio alignment
Total assets*	2023	629,379 tCO2e (Scope 1, 2 and 3)	68.6 tCO_2e/£m (Scope 1&2) 269.2 tCO_2e/£m (Scope 3)	87.6% (Scope 1&2) 55.7% (Scope 3)	1.8 - 2.8ºC
Total assets	2022	310,065 tCO2e (Scope 1, 2 and 3)	56.8 tCO_2e/£m (Scope 1&2) 53.9 tCO_2e/£m (Scope 3)	82.6% (Scope 1&2) 17.3% (Scope 3)	1.9 - 3.4ºC

Source: Investment managers / Aon. Data is as at YE 2022 and YE 2023 respectively.
The emissions associated with LDI have been calculated from the following sources: UK national emissions as at 31 Dec 2023 from the Emissions Database for Global Atmospheric Research. PPP-adjusted GDP as at 31 Dec 2022 from the Organization for Economic Cooperation and Development. The 2023 figure is currently unavailable.
Scope 3 carbon data and portfolio alignment metrics are not yet widely available for sovereigns and hence are deemed not applicable.
**The Trustee notes that the underlying methodology for corporates and sovereigns are different, but the splits have been shown by asset classes in the detailed breakdown below, this summary is for illustrative purposes.*

The Trustee, supported by its investment adviser for the DB Structure, Aon, collected the carbon emissions data using the industry standard Carbon Emissions Template ("CET")[4]. The CET was developed by a joint industry initiative by the Pension and Life Savings Association ("PLSA"), Association of British Insurers ("ABI") and Investment Association Working Group. The CET

[4] Data Delivery Frameworks | The Investment Association (theia.org)

provides a standardised set of data to help pension schemes meet their obligations under the Climate Change Governance and Reporting Regulations, and associated DWP Statutory Guidance, and to help insurers and investment managers fulfil their obligations under the FCA's new ESG Sourcebook as set out in PS21/24.

Methodology for data collection

When collecting the data, the Trustee also noted the following:

Asset Class	Approach
Equity	Carbon metrics data was provided by the manager. Where carbon footprint was provided, Aon applied this metric to the Plan's invested capital to estimate the Plan's total GHG emissions.
Property	Carbon metrics data was provided by the managers. Where total fund emissions were provided, Aon estimated the carbon footprint by dividing total emissions by total fund's AUM. The calculated carbon footprint was then applied to the Plan's invested capital to infer the Plan's total GHG emissions.
Active Credit	Carbon metrics data was provided by the manager. Where total fund emissions were provided, Aon inferred carbon footprint by dividing total emissions by total fund's AUM. The calculated carbon footprint was then applied to the Plan's invested capital to infer the Plan's total GHG emissions.
Private Equity / Debt	Carbon metrics data was provided by the managers. Where total fund emissions were provided, Aon estimated the carbon footprint by dividing total emissions by total fund's AUM. The calculated carbon footprint was then applied to the Plan's invested capital to infer the Plan's total GHG emissions.
Fixed Income	Carbon metrics data was provided by the managers. Aon applied the provided carbon footprint metric to Plan's invested capital to infer the Plan's total GHG emissions.
Gilts	Aon calculated the Plan's total GHG emissions, using the following sources: • UK national emissions as at 31 Dec 2022 from the Emissions Database for Global Atmospheric Research • PPP-adjusted GDP as at 31 Dec 2022 from the Organization for Economic Cooperation and Development.

Other notes:

1. Where carbon data was supplied in USD terms, Aon converted it to GBP terms as at 31 December 2023 FX rate.
2. Cash was excluded from carbon data analysis on the materiality basis.

There are further considerations for the manager methodologies, which is reported further against the more granular breakdown overleaf.

Detailed breakdown

The table below shows a more detailed breakdown of the emissions from each asset class in the Plan's portfolio (where available).

DB – Total Scope 1&2 GHG emissions (tons CO2e)

Asset class	Growth Fund	Illiquid Growth Fund	Liquid Credit Fund	Gilt Fund	Total
Equity	28,880	2,784	-	-	**31,664**
Property	775	-	-	-	**775**
Active Credit	10,521	-	-	-	**10,521**
Private Equity/ Debt	6,854	1,145	-	-	**7,999**
Fixed Income	-	-	2,233	-	**2,233**
Gilts	-	-	-	124,616	**124,616**
Total	**47,030**	**3,929**	**2,233**	**124,616**	**177,808**

Source: Investment managers / Aon. Data as at 31 December 2023 unless specified otherwise. Where manager data was provided in USD terms, Aon converted it to GBP terms used the appropriate FX rate as at 31 December 2023.
Two private equity/debt managers were only able to provide data as at 31 December 2022.
Two Property Managers were only able to provide data as at 31 December 2022.

DB – Total Scope 3 GHG emissions (tons CO2e)

Asset class	Growth Fund	Illiquid Growth Fund	Liquid Credit Fund	Gilt Fund	Total
Equity	337,182	32,504	-	-	**369,685**
Property	3,738	-	-	-	**3,738**
Active Credit	39,818	-	-	-	**39,818**
Private Equity/Debt	16,335	835	-		**17,170**
Fixed Income	-	-	21,160	-	**21,160**
Gilts	-	-	-	n/a	**n/a**
Total	**397,072**	**33,339**	**21,160**	**n/a**	**451,571**

Source: Investment managers / Aon. Data as at 31 December 2023 unless specified otherwise. Where manager data was provided in USD terms, Aon converted it to GBP terms used the appropriate FX rate as at 31 December 2023.
Two private equity/debt managers were only able to provide data as at 31 December 2022.
Two Property Managers were only able to provide data as at 31 December 2022.

DB – Carbon footprint Scope 1&2 and Scope 3 (tons CO_2e/£m)

Asset class	Growth Fund		Illiquid Growth Fund		Liquid Credit Fund		Gilt Fund	
	Scope 1&2	Scope 3	Scope 1&2	Scope 3	Scope 1&2	Scope 3	Scope 1&2	Scope 3
Equity	30.2	357.2	30.2	357.2	-	-	-	-
Property	2.8	20.5	-	-	-	-	-	-
Active Credit	178.0	673.8	-	-	-	-	-	-
Private Equity/Debt	32.4	77.2	6.7	8.9	-	-	-	-
Fixed Income	-	-	-	-	22.9	222.4	-	-
Gilts	-	-	-	-	-	-	170.2	n/a

Source: Investment managers / Aon. Data as at 31 December 2023 unless specified otherwise (please refer to the notes in the table above).

DB – Data coverage (%)

The table below shows data coverage for the total emissions on the asset class level. These figures are simple averages of the individual manager data.

Asset class	Growth Fund		Illiquid Growth Fund		Liquid Credit Fund		Gilt Fund	
	Scope 1&2	Scope 3	Scope 1&2	Scope 3	Scope 1&2	Scope 3	Scope 1&2	Scope 3
Equity	98.5%	97.2%	98.5%	97.2%	-	-	-	-
Property	87.3%	58.4%	-	-	-	-	-	-
Active Credit	26.2%	26.2%	-	-	-	-	-	-
Private Equity/Debt	99.6%	99.6%	77.0%	33.7%	-	-	-	-
Fixed Income	-	-	-	-	52.6%	51.3%	-	-
Gilts	-	-	-	-	-	-	100.0%	n/a

Source: Investment managers / Aon. Data as at 31 December 2023 unless specified otherwise (please refer to the notes in the table above).

The Trustee noted that overall, the availability of data for equity was very high, whereas this was generally lower for other asset classes such as active credit and fixed income. Data coverage has increased for property, private equity and debt instruments, due to the managers' ability to better estimate carbon emissions.

DB – Implied Temperature Rise (ºC)

The table below shows implied temperature rise ("ITR") on the asset class level. This is shown in degrees Celsius.

Asset class	Growth Fund ºC	Illiquid Growth Fund ºC	Liquid Credit Fund ºC	Gilt Fund ºC
Equity	2.8	2.8	-	-
Property[1]	2.5	-	-	-
Active Credit	1.9 - 3.1	-	-	-
Private Equity/ Debt	n/a	n/a	-	-
Fixed Income	-	-	1.8 - 2.5	-
Gilts	-	-	-	1.9

Source: Investment Managers / Aon.
[1]Property - this ITR is only applicable to one manager (which makes up 3.7% of the total Growth fund, the remaining managers were unable to provide this information). DWP guidance states that the trustee should not be aggregating the ITR unless the same methodology has been used across the scheme's investments. Aon has relied on the individual manager data, hence the consistency of methodology cannot be guaranteed. Statutory guidance: Governance and reporting of climate change risk: guidance for trustees of occupational schemes - GOV.UK (www.gov.uk)

Data observations

Carbon emissions data was split out by scope 1&2 and scope 3 separately, consistent with last year's report.

Most of the managers were able to provide some emissions data, however, not all the Plan's managers were able to provide ITR data.

The Trustee's investment adviser, Aon, requested data from all the Plan's managers for the DB Structure.

- Nine managers provided scopes 1, 2 and 3 GHG emissions.
- Three managers were able to provide an ITR metric.
- The availability of carbon-related and portfolio alignment metrics is highest for equity, which is consistent with what we have seen for other pension schemes.
- The scope 1&2 GHG emissions for the Plan's Property assets (Growth Fund) have decreased significantly since last year. One of the Plan's property managers has been able to provide a more granular level of data, which has led to differences arising with their GHG emissions between this and last year's reporting cycles. There has also been an improved level of data provided by another of the Plan's property managers, which has this year been able to split out its emissions figures between scope 1&2, and scope 3.
- Active Credit has experienced a significant decrease in GHG emissions since last year, which can be attributed to a fall in data coverage across all three scopes. The Trustee's investment adviser has liaised with the Plan's Active Credit manager, which noted that issues with its data vendor last year resulted in an inaccurately high carbon data coverage figure.

Trustee comment

The Trustee is pleased with the improvement in the data for this year's reporting and expects this to continue in the coming years' reporting.

It will continue to engage with its managers in relation to this, to help the Trustee understand its climate related risks through the reporting of carbon metrics.

Therefore, the drop in coverage seen this year is expected. Additionally, the manager acknowledged that last year's coverage was slightly higher due to the portfolio's higher exposure to liquidity funds.

- Private Debt and Equity (as part of the Illiquid Growth Fund) has also experienced a significant decrease in GHG emissions and carbon footprint this year. This can be explained by falling data coverage for numerous funds in which the Plan is invested with. The Trustee's investment adviser is liaising with one of the Plan's Private Debt and Equity managers to understand the reasons for this.

- Scope 3 carbon footprint for the Plan's Corporate Bonds (within the Liquid Credit Fund) has risen considerably since year 2, due to one of the managers being able to provide a figure for scope 3 carbon footprint in this reporting period, as opposed to last year. We do expect this to change next year as the Plan's current two Corporate Bond investment managers are expected to be replaced with an alternative manager.

- The ITR for the Gilt Fund (1.9ºC) was provided directly by the Plan's investment manager and is driven by the UK government's legally binding commitment to achieving net-zero by 2050. The Trustee's investment adviser is currently liaising with the Plan's Gilt manager to better understand how this figure has been calculated.

- None of the Private Debt and Equity managers were able to provide the ITR for the Plan. This is not uncommon compared to what we have seen for other pension schemes.

Aon did not make any estimates for the missing data.

The Trustee expects that in the future better information will be available from managers and this improvement will be reflected in the coming years' reporting. The Trustee, and its advisers, continue to engage with the Plan's managers that were unable to supply data to communicate our expectation of improvement for future reporting.

The Trustee notes that there is not yet an industry-wide standard on calculating some of these metrics and that different managers may use different methods and assumptions when providing data to the Trustee.

These issues are common across the industry at the current time and highlight the importance of TCFD-aligned reporting to improve transparency. The Trustee expects that in the future better information will be available from managers as the industry aligns to expectations and best practice standards.

DC Structure

The Plan's climate-related metrics

The table below summarises climate-related metrics for the Plan's assets over the last reporting year, compared to the year before.

Key observations

- The total GHG emissions of combined scope 1&2 and scope 3 for LifePath Flexi, LifePath Capital and the Global Equity Fund have increased. This increase is mainly linked to the increase in the asset size of each of the funds.
- Carbon footprint has decreased across all three of the reported DC funds, which is progress in a favourable direction. This has been driven by an increase in the Enterprise Value Including Cash ("EVIC") of the companies in which the Plan invests rather than a noticeable decrease in the level of carbon emissions.
- Data coverage (reported + estimated) has increased for all funds, except the Global Equity Fund – this was a very marginal decrease (approximately 1%) for an otherwise high coverage percentage (>95%).
- Implied Temperature Rise has decreased over the period for all three DC funds. During the Plan year, MSCI (the data provider) has made the following updates to their ITR model:

Improvement[5]	Previous Model	New Model
Higher scenario ambition	2.0ºC scenario benchmark	1.55 ºC scenario benchmark
	Net Zero horizon in 2070	Net Zero horizon in 2050
Pathways more science-based, transparent and sector-specific	In-house MSCI Pathways	NGFS Net Zero 2050 Pathways
	Some sectoral differentiation	High sectoral differentiation
Greater consistency with global carbon budget consumption over 2020-2050	Revenue budget adjustment	Market-share budget adjustment
	No fixed baseline year	Fixed baseline year: end 2019
Assessment of transition planning and progress	Ambition-based projected emissions	Target credibility-based projected emissions

[5] https://www.msci.com/documents/1296102/31997292/MSCI+ITR-cbr-en-CheatSheet.pdf/2015bb29-2840-f34c-bcfb-307131d1cdce?t=1707933688920#:~:text=MSCI%20ESG%20Research%20recently%20implemented%20a%20series%20of,to%20deliver%20a%20clearer%20view%20of%20climate%20progress.

- As the model enhancements can have offsetting effects depending on sector, the ITR output may not increase across all assets. Note that the prior year comparatives have not been restated for this change in methodology as the information has not been received from MSCI and therefore it is deemed to be impracticable. The Trustee is comfortable with using the updated model going forward, however, due to these changes, understands that it may be difficult to do a direct comparison between this year's data and last year. The expectation is that, going forward, these figures will be more comparable year on year.

As the LifePath Flexi strategy and the Global Equity Fund have a much larger allocation to Equities and Corporate Fixed Income (>87%), the emissions data is more widely available and hence these metrics have a more meaningful increase in GHG emissions compared to the relative increase for LifePath Capital. The LifePath Capital strategy has a higher allocation to Cash and Sovereigns (>17%), for which there is limited/ no emissions data available.

These are the Plan's metrics:

Year		Scope	LifePath Flexi	LifePath Capital	Global Equity Fund
To 31 December 2023	Total Greenhouse Gas emissions	tCO2e (Scope 1&2)	32,916	3,253	9,319
		tCO2e (Scope 3)	204,234	21,458	71,817
	Carbon footprint	tCO2e/£m EVIC (Scope 1&2)	47.7	44.5	81.9
		tCO2e/£m EVIC (Scope 3)	332.6	322.7	717.0
	Data coverage (Reported + Estimated)	Scope 1&2	87.7%	53.3%	96.1%
	Implied Temperature Rise*		2.2°C	2.2°C	2.3°C
To 31 December 2022	Total Greenhouse Gas emissions	tCO2e (Scope 1&2)	27,825	3,233	8,629
		tCO2e (Scope 3)	176,709	21,146	62,013
	Carbon footprint	tCO2e/£m EVIC (Scope 1&2)	57.6	55.4	99.3
		tCO2e/£m EVIC (Scope 3)	399.4	391.2	805.8
	Data coverage (Reported + Estimated)	Scope 1&2	85.4%	49.8%	97.3%
	Implied Temperature Rise		2.6°C	2.6°C	2.5°C

Source: Aegon/MSCI.

** The 2023 ITR data is based on the model as defined above. As such, the numbers for 2023 and 2022 are not directly comparable due to differences in underlying methodology.*

The table above outlines the funds' metrics, including scope 1&2 and scope 3, as agreed by the Trustee:

- Total GHG Emissions is defined as tonnes of CO2e.
- Carbon Footprint is defined as tonnes of CO2e/£m invested.

The % coverage of emissions reported, estimated, and not reported forms the Funds' data coverage assessment. The granularity of the data provided by Aegon has improved over the period.

The Trustee will continue to focus on two key areas for the DC Structure over the next 12 months:

- The Trustee, with Redington's assistance, will continue to engage with Aegon and BlackRock to request higher data availability and coverage across all mandates.

- Through engagement, the Trustee will identify opportunities to improve coverage or investigate alternative sources of data.

Looking to the future
Trustee's climate-related targets

Climate-related targets help the Trustee track its efforts to manage the Plan's climate-change risk exposure.

The Trustee has set a target for improving the data quality metric. Without meaningful data from the investment managers, it is very hard for the Trustee to measure its climate-risk exposure. So, it is important to set a target to improve the quality, and in particular coverage, of GHG emissions data from the managers.

Trustee update

Each year, the Trustee reviews the suitability of the target we have set. Based on the data collected and the metrics calculated this year, we believe the target continues to be suitable.

DB Structure

2022 Target

The Trustee updated its target last year based on observations of the data quality. The target is set by the end of 5 years, using data as at 31 December 2021 as the baseline (i.e., by the end of 31 December 2026):

- ***To achieve 80% coverage of data across scope 1&2, and scope 3 GHG emissions for the Plan's total assets.***
- ***To achieve 80% coverage of data for the property assets (scopes 1, 2 and 3 GHG emissions).***
- ***To achieve 60% coverage of data for the active credit assets (scopes 1, 2 and 3 GHG emissions).***

2023 Update

The Trustee has observed the following in relation to the targets set:

- The coverage of data for scope 1&2 emissions has again surpassed the 80% target. There has been an improvement in the coverage of scope 3 emissions, but there is still improvement required to achieve the 80% target. As such, this target is partially met.
- There has been an overall improvement in the coverage of data for the property assets. Coverage for scope 1&2 has increased from 73.1% to 87.3%, and coverage for scope 3 has increased from 34.2% to 58.4%. As such, this target is partially met.
- There have been changes to the managers within the active credit asset class. Coverage of data has dropped from 41.2% to 26.3% for scope 1&2, and for scope 3 it has dropped from 41.0% to 26.3%. The Trustee recognises that when there are changes in managers this can lead to differences in data recorded. It recognises that there are improvements to be made in this asset class to meet the targets set.

Our progress towards the targets

The table below shows the data quality metrics for over the previous three years.

Data Coverage	2021	2022	2023	Target (2026)
Property (Scope 1&2)	65.1%	73.1%	87.3%	80.0%
Property (Scope 3)	n/a	34.2%	58.4%	80.0%
Active Credit (Scope 1&2)	22.9%	41.2%	26.3%	60.0%
Active Credit (Scope 3)	n/a	41.0%	26.3%	60.0%
Total Assets (Scope 1&2)	77.6%	82.6%	87.6%	80.0%
Total Assets (Scope 3)	n/a	17.3%	55.7%	80.0%

Source: Investment managers / Aon. Data as at calendar YE unless specified otherwise (please refer to the notes in the table above). 'n/a' denotes 'not applicable', given scope 3 emissions were not mandated to be reported on until the second year of reporting.

Since last year, good progress has been made with data coverage improving across property assets and more broadly across the Plan's total assets. However, the Trustee acknowledges that there has been a fall in data coverage within the Plan's active credit assets.

The Plan's performance against the target is measured and reported on every year. Over time, this will show the Plan's progress against the target.

DC Structure

2021 Target

Based on the observation of data quality in the first TCFD report, the Trustee has agreed to set the following data quality target for its Plan's assets:

"In 5 Years' time (i.e. in 2026), achieve above 80% coverage of carbon emission data across all asset classes split across scopes 1, 2 and 3 for the DC Structure, with 2021 as the baseline year."

2023 Update

For the DC Structure, based on the observation of data coverage summarised in the previous section, the Trustee has noted an improvement in the data for all of the three reported funds, where LifePath Flexi and Global Equity Fund have achieved and maintained the 80% target. The LifePath Capital strategy has fallen short of the target of 80% coverage, but there has been an improvement in the data coverage compared to the previous reporting year, now at 53.3% compared to 49.8% previously. The Trustee, with assistance from Redington will continue to work with Aegon and BlackRock to achieve this target.

Revising our target

DB Structure

Observation 	**New target** 
The Trustee has observed: • The total asset coverage of data for scope 1&2 emissions has again surpassed the 80% target. There has been an improvement in the coverage of scope 3 emissions, but this is still below the 80% target. As such, this target is partially met. • There has been an overall improvement in the coverage of data for the property assets. Coverage for scope 1&2 has increased from 73.1% to 87.3%, and coverage for scope 3 has increased from 34.2% to 58.4%. As such, this target is partially met. • There have been changes to the managers within the active credit asset class. Coverage of data has dropped from 41.2% to 26.3% for scope 1&2, and for scope 3 is has dropped from 41.0% to 26.3%. The Trustee recognises that when there are changes in managers this can lead to differences in data recorded. It recognises that there are improvements to be made in this asset class to meet the targets set.	No changes to the current targets as set out in 2022, achieving the following by the end of 5 years, using 2021 as its baseline year (i.e., by the end of 2026): • above 80% coverage of carbon emission data across the Plan's total assets covering scope 1&2, and scope 3; • above 80% coverage of carbon emission data across all property assets; and • above 60% coverage of carbon emission data across the active credit assets.

DC Structure

Observation	New target
During the third reporting period, there has been an improvement in the data coverage for the LifePath Flexi strategy, resulting in the Trustee meeting its 80% target coverage of emissions data. As of 31 December 2023: LifePath Flexi: Data coverage for LifePath Flexi increased to 87.7% from 85.4% in the previous period. LifePath Capital: Data coverage for LifePath Capital increased to 53.3% from 49.8% in the previous period. Global Equity Fund: Data coverage for this fund slightly decreased to 96.1% from 97.3% in the previous period – this is a marginal decrease that is not unreasonable when the coverage is very high (<95%). The Plan is moving in a favourable direction to words attaining the goal of 80% data coverage across the three reported DC funds, where two of which have already reached this goal. Based on the steps identified in the last report to ensure there is an increase in data availability, Redington encouraged Aegon to provide scope 3 emissions, as well as data increased the granularity within the reported data.	No changes to the current target of achieving above 80% coverage of carbon emission data across all asset classes split across scopes 1, 2 and 3 over a 5-year period (to 2026) from 2021.

The Trustee will continue to measure and report on the Plan's performance against the target every year. Over time, this will show the Plan's progress against the target for both the DB and DC Structure.

The Trustee will be taking the following steps to reach the target:

Increasing data availability 	**Making the reporting consistent** 
Observation For the DB Structure, there has been a trend of increasing coverage of data. Within the active credit assets, the coverage of data has fallen, however there have been significant changes to the managers within this. For the DC Structure, scope 3 emissions data and carbon footprint data was available, where the data coverage metric did not have scope 3 emissions.	**Observation** The Trustee has noted some unexpected changes in the data versus previous years. The Trustee recognises that the collection and reporting of carbon emission data is still in its infancy, and therefore is, with the support of its investment consultant Aon, querying the data reported by the Plan's managers where relevant. Changes in the data has also been noted as new mandates are implemented in the Plan. Whilst there has been a trend of an improvement of the data being received by its managers, the Trustee recognises that there are further improvements which can be made. Aegon has provided data that is more granular than previous years, however further improvements can continue to be made in this space.
Solution The Trustee will engage with the managers directly, or through Aon (DB Structure) and Redington (DC Structure), to encourage the provision of scope 3 data coverage for the next reporting cycle. Through engagement, it is expected that this will identify opportunities to improve data availability or investigate alternative sources of data, particularly where there are significant gaps in the data.	**Solution** The Trustee will engage with the managers directly, or through Aon (DB Structure) and Redington (DC Structure), to understand challenges with providing more granular data and find an appropriate solution to improve this going forward.

Appendices

Glossary

Governance	refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders.[6] Governance involves a set of relationships between an organisation's management, its board, its shareholders, and other stakeholders. Governance provides the structure and processes through which the objectives of the organisation are set, progress against performance is monitored, and results are evaluated.[7]
Strategy	refers to an organisation's desired future state. An organisation's strategy establishes a foundation against which it can monitor and measure its progress in reaching that desired state. Strategy formulation generally involves establishing the purpose and scope of the organisation's activities and the nature of its businesses, taking into account the risks and opportunities it faces and the environment in which it operates.[8]
Risk management	refers to a set of processes that are carried out by an organisation's board and management to support the achievement of the organisation's objectives by addressing its risks and managing the combined potential impact of those risks.[9]
Climate-related risk	refers to the potential negative impacts of climate change on an organisation. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise). Climate-related risks can also be associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations.[10]
Climate-related opportunity	refers to the potential positive impacts related to climate change on an organisation. Efforts to mitigate and adapt to climate change can produce opportunities for organisations, such as through resource efficiency and cost savings, the adoption and utilization of low-emission energy sources, the development of new products and services, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market, and industry in which an organisation operates.[11]

[6] A. Cadbury, Report of the Committee on the Financial Aspects of Corporate Governance, London, 1992.
[7] OECD, G20/OECD Principles of Corporate Governance, OECD Publishing, Paris, 2015.
[8] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[9] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[10] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[11] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017

Greenhouse gas emissions scope levels[12]	Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard. Scope 1 refers to all direct GHG emissions. Scope 2 refers to indirect GHG emissions from consumption of purchased electricity, heat, or steam. Scope 3 refers to other indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions could include: the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses), outsourced activities, and waste disposal.[13]
Value chain	refers to the upstream and downstream life cycle of a product, process, or service, including material sourcing, production, consumption, and disposal/recycling. Upstream activities include operations that relate to the initial stages of producing a good or service (e.g., material sourcing, material processing, supplier activities). Downstream activities include operations that relate to processing the materials into a finished product and delivering it to the end user (e.g., transportation, distribution, and consumption).[14]
Climate scenario analysis	is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty. In the case of climate change, for example, scenarios allow an organisation to explore and develop an understanding of how the physical and transition risks of climate change may impact its businesses, strategies, and financial performance over time.[15]
Net zero	means achieving a balance between the greenhouse gases emitted into the atmosphere, and those removed from it. This balance – or net zero – will happen when the amount of greenhouse gases add to the atmosphere is no more than the amount removed.[16]

[12] World Resources Institute and World Business Council for Sustainable Development, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), March 2004.
[13] PCC, Climate Change 2014 Mitigation of Climate Change, Cambridge University Press, 2014.
[14] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[15] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[16] Energy Saving Trust, What is net zero and how can we get there? - Energy Saving Trust, October 2021

Appendix – An explanation of climate risk categories

Climate-related risks are categorised into physical and transition risks. Below are examples of transition and physical risks.

Transition risks

Transition risks are those related to the ability of an organisation to adapt to the changes required to reduce greenhouse gas emissions and transition to renewable energy. Within transition risks, there are four key areas: policy and legal, technological innovation, market changes, and reputational risk.

Policy and legal

Examples

Increased pricing of GHG emissions

Enhanced emissions-reporting obligations

Regulation of existing products and services

Potential financial impacts

Increased operating costs (e.g. higher compliance costs, increased insurance premiums)

Write-offs, asset impairment and early retirement of existing assets due to policy changes

Technology

Examples

Cost to transition to lower emissions technology

Unsuccessful investments in new technologies

Potential financial impacts

Write-offs and early retirement of existing assets

Capital investments in technology development

Costs to adopt new practices and processes

Market

Examples

Changing customer behaviour

Uncertainty in market signals

Increased cost of raw materials

Potential financial impacts

Reduced demand for goods and services due to shift in consumer preferences.

Abrupt and unexpected increases in energy costs.

Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations).

Reputational

Examples

Stigmatisation of sector

Increased stakeholder concern or negative stakeholder feedback

Potential financial impacts

Reduced revenue from decreased demand for goods and services.

Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)

Reduced revenue from negative impacts on workforce management and planning

Physical Risks

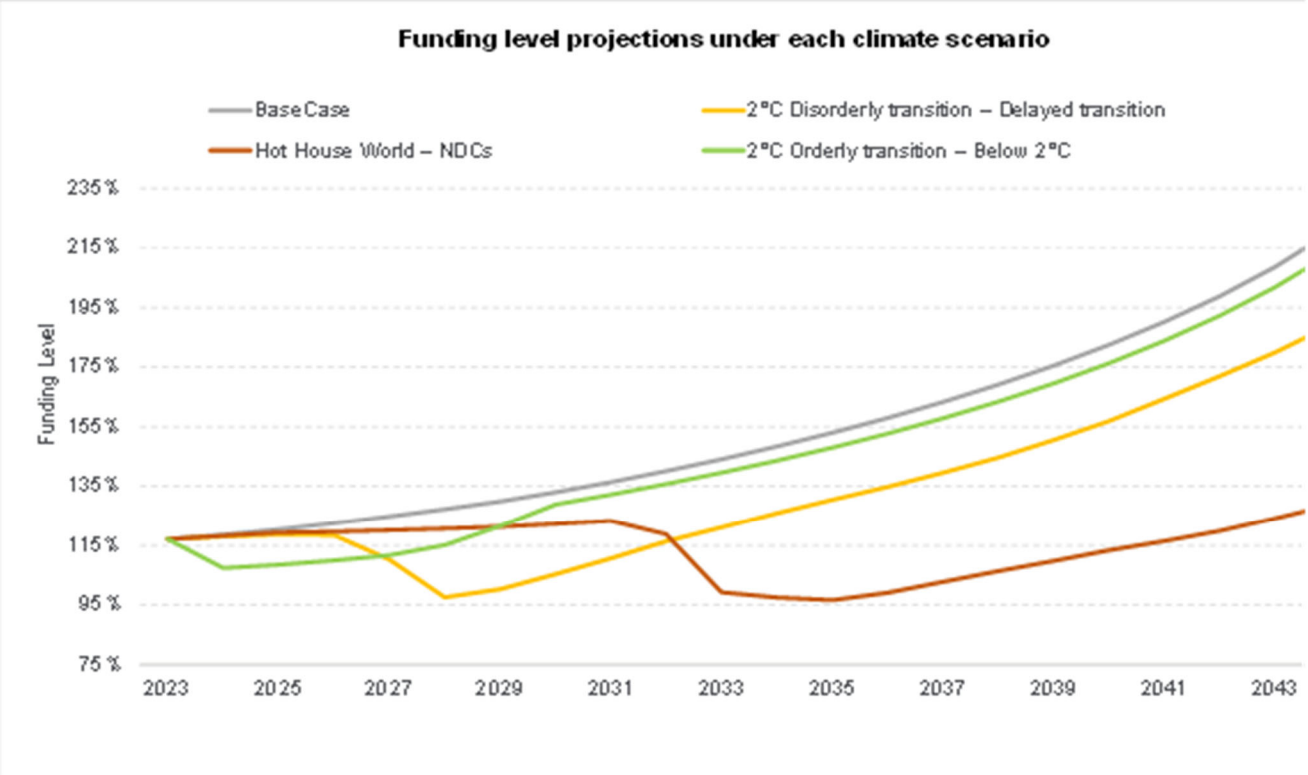
Physical risks refer to the physical impacts of climate change on a firm's operations. They directly impact a firm's ability to perform its function due to climate disruption. They fall into two subcategories: acute and chronic. Acute risks are extreme climate events such as flooding and wildfires, and chronic risks are trends over time such as an increase in temperature or ocean acidification.

Acute	Chronic
Examples	**Examples**
Extreme heat	Water stress
Extreme rainfall	Sea level rises
Floods	Land degradation
Droughts	Variability in temperature
Storms (e.g., hurricanes)	Variability in precipitation

Appendix – Climate scenario modelling output and assumptions

DB Structure

Funding level projections under each climate scenario – Group 2



Source: Aon. Scenario projections as at 31 December 2023

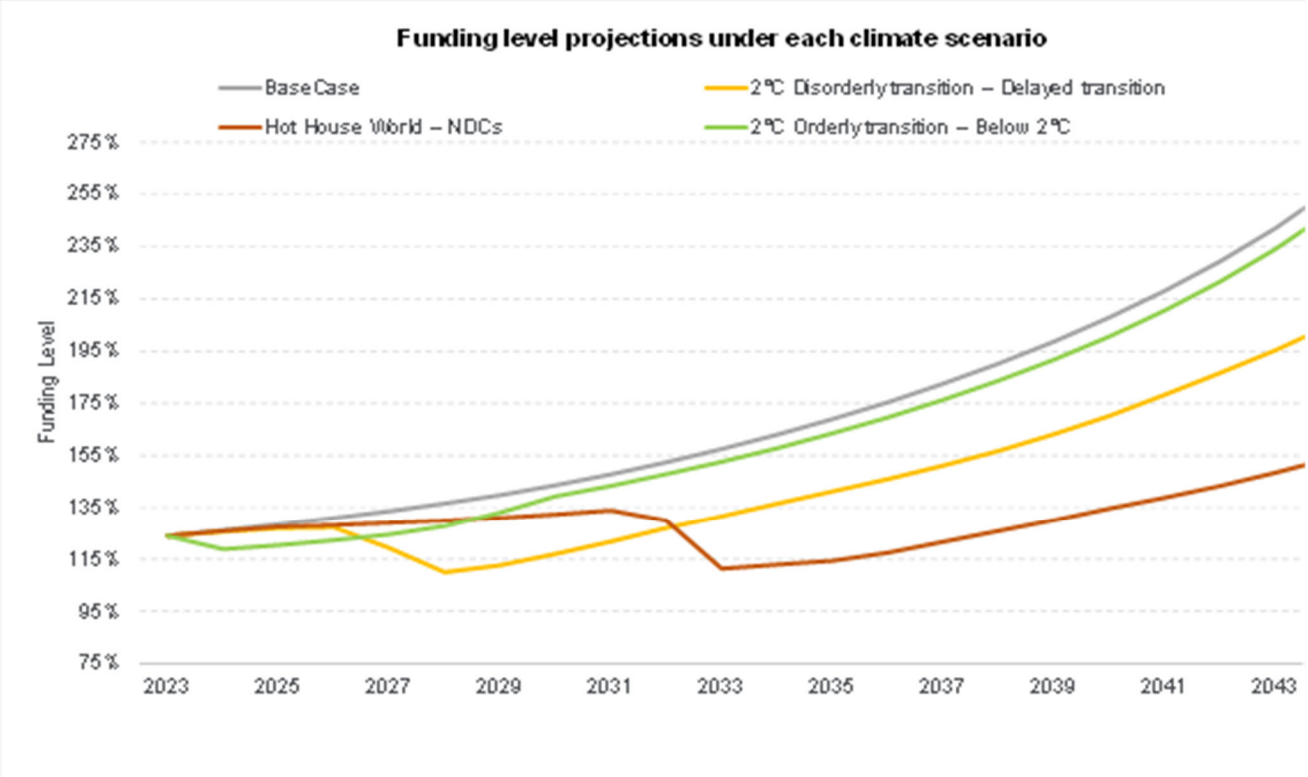
Group 2

	Summary of the Scenario	Summary of the impact to the Plan
Hot House World – NDCs Temperature rise <3°C Reach net-zero After 2050 Environmental regulation Late and Aggressive	**In the short-term:** Insufficient consideration given to long-term policies and there is no action taken to combat climate change **In the medium-term:** Late but coordinated action is taken to tackle climate change. The late timing means it is less effective and more costly to implement. Adverse impacts from climate change leads to a drag on risk assets	**In the short-term:** Initially, there is no impact on the Plan's funding level, as it is expected to follow the base case. The funding level remains above 100%. **In the medium-term:** The funding level begins to lag the base case. Towards the end of the medium-term, the Plan experiences a sharp decline in the funding level and moves into deficit. This may place a strain on the sponsoring employers should they be required to make up any funding shortfall. Given the lower risk

		strategy and higher level of hedging, this Group does not experience as large a drop in funding as Group 1.
	In the long-term: After the costly implementation to tackle climate change and the resulting drag on risky assets, the transition to clean technologies and green regulation begins to boost economic growth when considering the very long-term. However, the late and disorderly climate transition means that physical climate risks remain prominent over the very long-term.	**In the long-term:** Whilst the funding level is expected to recover by the end of the period considered for the modelling, moving back into surplus, this leaves the Plan materially worse off versus the base case. This is the worst potential outcome for the Plan.
2°C Orderly transition – Below 2°C Temperature rise 1.3°C - 2°C Reach net-zero 2050 Environmental regulation Coordinated	Summary of the Scenario **In the short-term:** Immediate coordinated global action is taken to tackle climate change. Risky assets perform poorly. **In the medium-term:** The rapid transition to clean technologies and green regulation begins to boost economic growth. **In the long-term:** The rapid transition to clean technologies and green regulation continues to boost economic growth. This represents the fastest transition to a green economy, combined with limited physical impacts from climate change despite the large initial transition cost.	Summary of the impact to the Plan **In the short-term:** The Plan suffers an immediate deterioration in funding; however, it is expected to remain fully funded. **In the medium-term:** The funding level begins to recover following an initial fall as the assets such as equity and credit, benefit from the economic growth. **In the long-term:** The Plan continues to recover over the long-term and remains well funded by the end of the 20-year modelling period, however, this does lag the base case. This is expected to be the best outcome for the Plan.
2°C Disorderly transition – Delayed transition Temperature rise 1.5°C - 2°C Reach net-zero 2050 Environmental regulation Aggressive	Summary of the Scenario **In the short-term:** Despite growing public awareness, material action is not undertaken to combat climate change. **In the medium-term:** Increasing effects of extreme weather lead to a rapid introduction of policies to tackle climate change. The delayed action leads to higher costs to tackle climate change and risky assets perform poorly as a result. The higher costs are the result for the economy being forced to transition away from fossil fuels. **In the long-term:** Following rapid action in the medium-term, the longer-term benefits from tackling climate change lead to higher growth.	Summary of the impact to the Plan **In the short-term:** There is no initial risk to the Plan's funding level, as it is expected to broadly follow the base case. **In the medium-term:** The Plan's funding level experiences a sudden fall after around five years, dropping below the base case and into deficit. This may place a strain on the sponsoring employers should they be required to make up any funding shortfall. Given the lower risk strategy and higher level of hedging, this Group does not experience as large a drop in funding as Group 1. **In the long-term:** In the long-term, the funding level recovers from the drop in funding experienced in the medium-term, moving back into surplus which increases over time. However, this is expected to lag the base case.

Source: Aon. *Effective date of the impact assessment is 31 December 2023*

Funding level projections under each climate scenario – Group 3



Source: Aon. Scenario projections as at 31 December 2023

Group 3

Hot House World – NDCs

Temperature rise
<3°C

Reach net-zero
After 2050

Environmental regulation
Late and Aggressive

Summary of the Scenario

In the short-term:

Insufficient consideration given to long-term policies and there is no action taken to combat climate change

In the medium-term:

Late but coordinated action is taken to tackle climate change. The late timing means it is less effective and more costly to implement. Adverse impacts from climate change leads to a drag on risk assets

In the long-term:

After the costly implementation to tackle climate change and the resulting drag on risky assets, the transition to clean technologies and green regulation begins to boost economic growth when considering the very long term. However, the late and disorderly climate transition means that physical climate risks remain prominent over the very long term.

Summary of the impact to the Plan

In the short-term:

Initially, there is no impact on the Plan's funding level, as it is expected to follow the base case. The funding level remains above 100%.

In the medium-term:

The funding level begins to lag the base case. Towards the end of the medium term, the Plan experiences a sharp decline in the funding level, however, it is expected to remain in surplus. Given the lower risk strategy and higher level of hedging, this Group does not experience as large a drop in funding as Groups 1 and 2.

In the long-term:

Whilst the funding level is expected to recover by the end of the period considered for the modelling, this leaves the Plan materially worse off versus the base case. This is the worst potential outcome for the Plan, however the Plan remains in surplus throughout the time horizons considered.

2°C Orderly transition – Below 2°C Temperature rise 1.3°C - 2°C Reach net-zero 2050 Environmental regulation Coordinated	Summary of the Scenario	Summary of the impact to the Plan
	In the short term: Immediate coordinated global action is taken to tackle climate change. Risky assets perform poorly.	**In the short term:** The Plan suffers an immediate deterioration in funding, however it is expected to remain fully funded.
	In the medium term: The rapid transition to clean technologies and green regulation begins to boost economic growth.	**In the medium term:** The funding level begins to recover following an initial fall as the assets such as equity and credit, benefit from the economic growth.
	In the long term: The rapid transition to clean technologies and green regulation continues to boost economic growth. This represents the fastest transition to a green economy, combined with limited physical impacts from climate change despite the large initial transition cost.	**In the long term:** The Plan continues to recover over the long term and remains well funded by the end of the 20-year modelling period, however, this does lag the base case. This is expected to be the best outcome for the Plan.
2°C Disorderly transition – Delayed transition Temperature rise 1.5°C - 2°C Reach net-zero 2050 Environmental regulation Aggressive	Summary of the Scenario	Summary of the impact to the Plan
	In the short term: Despite growing public awareness, material action is not undertaken to combat climate change.	**In the short term:** There is no initial risk to the Plan's funding level, as it is expected to broadly follow the base case.
	In the medium term: Increasing effects of extreme weather lead to a rapid introduction of policies to tackle climate change. The delayed action leads to higher costs to tackle climate change and risky assets perform poorly as a result. The higher costs are the result for the economy being forced to transition away from fossil fuels.	**In the medium term:** The Plan's funding level experiences a sudden fall after around five years, dropping below the base case, however it is expected to remain in surplus. Given the lower risk strategy and higher level of hedging, this Group does not experience as large a drop in funding as Groups 1 and 2.
	In the long term: Following rapid action in the medium term, the longer-term benefits from tackling climate change lead to higher growth.	**In the long term:** In the long-term, the funding level recovers from the drop in funding experienced in the medium term. However, this is expected to lag the base case despite remaining in surplus throughout.

Source: Aon. Effective date of the impact assessment is 31 December 2023

The climate scenarios were developed by Aon and are based on detailed assumptions. They are only illustrative and are subject to considerable uncertainty. They consider the exposure of the Plan to climate-related risks and the approximate impact on asset and liability values over the long-term.

The purpose of the model is to consider the long-term exposure of the Plan to climate-related risks and the pattern of asset returns over the long term.

In particular, the model considers different climate change scenarios and the approximate impact on asset and liability values over the long-term.

Aon's model assumes a deterministic projection of assets and gilts+0.25% liabilities, using standard actuarial techniques to discount and project expected cashflows.

i. It models the full yield curve as this allows for an accurate treatment of the liabilities and realistic modelling of the future distribution of interest rates and inflation. It also allows the Trustee to truly assess the sensitivities of the assets and liabilities to changes in interest and inflation rates.
ii. The parameters in the model vary deterministically with the different scenarios.

The liability update and projections are considered appropriate for the analysis. However, they are approximate, and a full actuarial valuation carried out at the same date may produce a materially different result.

The model intends to illustrate the climate-related risks the Plan is currently exposed to, highlighting areas where risk mitigation could be achieved through changing the portfolio allocation.

i. Other relevant issues such as governance, costs, and implementation (including manager selection and due diligence) must be considered when making changes to the investment strategy.
ii. Climate-related risks are considered on an asset class level, and do not consider the specific geographical locations which will have a strong influence on the climate-related risk the Plan is exposed to.

Investment risk is only captured in the deviance from the Base Case, but this is not the only risk that the Plan faces; other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks.

The model has been set up to capture recent market conditions and views; the model may propose different solutions for the same strategy under different market conditions.

DC Structure

Concerns with current scenario analysis methodology:

- As developments are made in industry-wide best practice for scenario analysis and the underlying methodology, it is important for the Trustee to note the criticisms or concerns that arise around different methods of scenario analysis.
- These concerns have been detailed below, where TPR's recent view of good practice has been summarised. We have also included Redington's recommended approach on addressing these concerns going forward.

Section	TPR's view of good practice	Concerns observed with scenario analysis	Recommended approach going forward
Strategy Pillar and scenario analysis	Identify climate-related risks and opportunities for specific asset classes, where relevant, and for the sponsor.	Assessment of risks based on ratings which weren't available across all asset classes/time horizons.	Set out views on climate-related risks and opportunities affecting the scheme even when relying on input from others.
	Include commentary on analysis limitations and how this affects analysis conclusions.	Using the same time horizons for DB and DC sections without clear scheme context.	Ensure time horizons are sufficiently long enough, for DC, in particular.
	Assess impact on different member cohorts for DC.	Covenant omitted or only covered by high-level comment.	Consider narrative-based qualitative analysis.
	Include how analysis is considered as part of investment decisions.	Analysis covering a shorter time than relevant horizons identified by trustees.	Ensure sufficient understanding of assumptions and limitations for quantitative scenario analysis.
		For the Hot House World scenario, MSCI is currently in the process of updating its models. As a result, the current outputs do not fully capture the complete impact on the portfolio in terms of physical risk. However, when the next output is generated, we anticipate that the impact of Hot House World will be more pronounced.	Interpret analysis results and comment on analysis conclusions.

Appendix – Greenhouse gas emissions in more detail

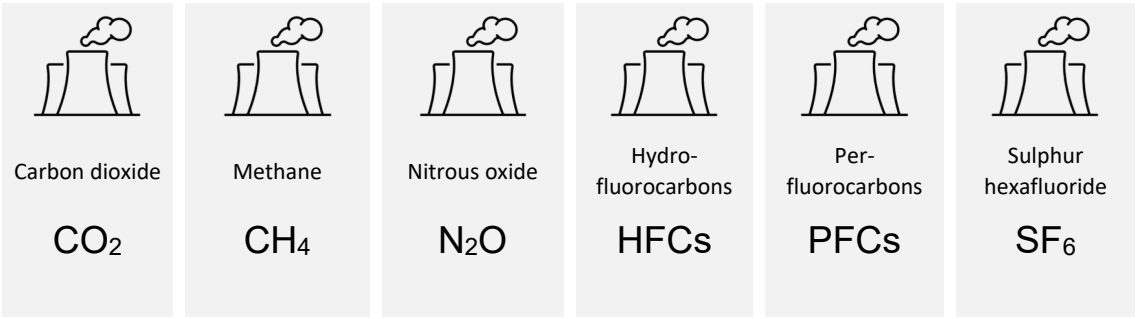
Greenhouse gases in the atmosphere, including water vapour, carbon dioxide, methane, and nitrous oxide, keep the Earth's surface and atmosphere warm because they absorb sunlight and re-emit it as heat in all directions including back down to Earth. Adding more greenhouse gases to the atmosphere makes it even more effective at preventing heat from leaving the Earth's atmosphere.

Greenhouse gases are vital because they act like a blanket around the Earth making it the climate habitable. The problem is that human activity is making the blanket "thicker". For example, when we burn coal, oil, and natural gas we send huge amounts of carbon dioxide into the air. When we destroy forests, the carbon stored in the trees escapes to the atmosphere. Other basic activities, such as raising cattle and planting rice, emit methane, nitrous oxide, and other greenhouse gases.

The amount of greenhouse gases in the atmosphere has significantly increased since the Industrial Revolution. The Kyoto Protocol[17] identifies six greenhouse gases which human activity is largely responsible for emitting. Of these six gases, human-made carbon dioxide is the biggest contributor to global warming.

Each greenhouse gas has a different global warming potential and persists for a different length of time in the atmosphere. Therefore, emissions are expressed as a carbon dioxide equivalent (CO_2e). This enables the different gases to be compared on a like-for-like bases, relative to one unit of carbon dioxide.

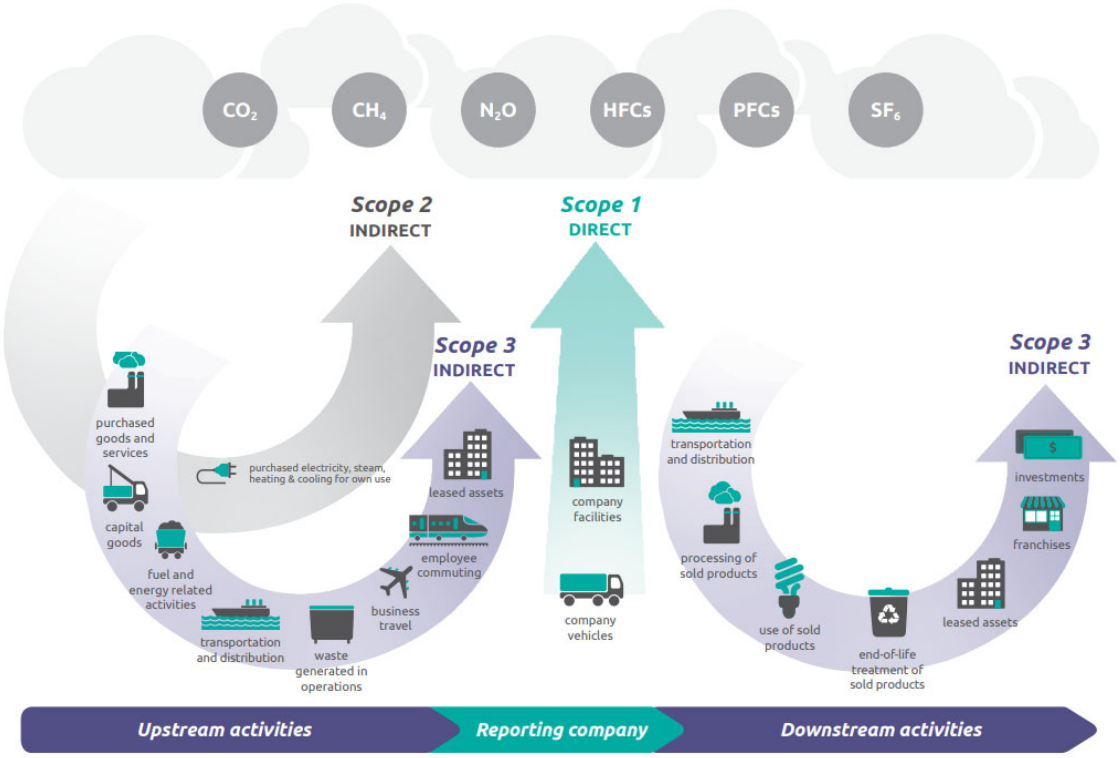
Six main greenhouse gases identified by the Kyoto Protocol



[17] https://unfccc.int/kyoto_protocol

Greenhouse gases are categorised into three types or ‘scopes’ by the Greenhouse Gas Protocol, the world’s most used greenhouse gas accounting standard.

Overview of GHG Protocol scopes and emissions across the value chain



Source: Greenhouse Gas Protocol, Corporate value chain (scope 3) Accounting and Reporting Standard, 2011