Your Pension, Our Planet

Taskforce on Climate-Related Financial Disclosures (TCFD) Statement

Year ended 31 March 2024

Vodafone Group Pension Trustee Limited

Year ended 31 March

2024

Every year, the Trustee produces a formal report which highlights how climate change might affect the Scheme and what is being done to manage those effects.

This report is also known as the Taskforce on Climate-Related Financial Disclosures (TCFD) Statement. It's structured around four pillars: Governance, Strategy, Risk Management, and Metrics and Targets.

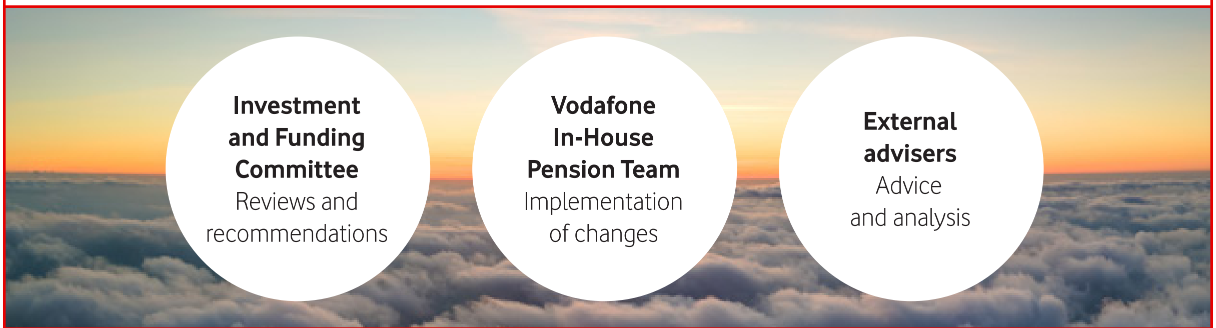
The money that will one day pay your pension is currently being invested, and this report covers the climate-related risks and opportunities that go along with that. For example, how is the Scheme doing against its targets for carbon emissions? What might happen to the Scheme's investments if global temperatures continue to rise? And what training is the Trustee Board undertaking in order to understand these issues?

This is just a 6-page summary of the TCFD Statement. Read the full report from page 7 to find out more.

Governance

The Trustee Board has overall responsibility for the management of climate- related risks and opportunities. To help the Trustee Board with this, certain areas are delegated to particular groups.

Trustee Board
Overall responsibility, including setting objectives



The Trustee completed the following **areas of training** over the reporting year:

- **May 23 | Stewardship challenges**
- **June 23 | Stewardship themes**
- **Sep 23 | Climate scenarios and funding strategies**

Strategy

The Trustee considers engagement with investment managers to be the key tool in addressing climate risks and capitalising on opportunities.

This entails **the following actions**:

Meeting
The Trustee meets with investment managers throughout the year. **During the year under review, the most notable meeting in this respect was with Insight**.

Delegation
The Trustee delegates engagement with the underlying companies in which the Scheme is invested to the Scheme's investment managers.

Selection
The Trustee incorporates climate-related risks and opportunities into the manager selection process. **During the year under review, this applied to the selection of the Vodafone Section's Multi Class Credit manager**.

Research and monitoring
The Scheme's investment consultant provides the Trustee with manager research and monitoring.

The Trustee has looked at three different scenarios around the Paris Agreement's goal of keeping global temperatures less than two degrees warmer than pre-industrial levels:

Here's what this analysis suggested would happen to the **Scheme's funding level** in each scenario:

Scenario	Vodafone section	CWW section
Fast transition Reaching the Paris goal in three years.	-10.9%	-9.0%
Slow transition Reaching the Paris goal by 2050.	-11.4%	-9.5%
No transition Not reaching the Paris goal, with global temperatures rising to four degrees warmer than pre-industrial levels by 2100.	+0.6%	-0.2%

The main reason why reaching the Paris goal could have a negative effect on the Scheme's funding position is that it's likely to mean people live longer, which is good news in general, but more expensive for pension schemes like ours.

Risk Management

Climate risks are integrated with the Trustee's wider risk management framework.

The Trustee has the following **safeguards** in place:

Policies

The Trustee has a Statement of Investment Principles, an Implementation Statement and a Responsible Investment policy.

Regulations

The Trustee complies with relevant regulations, including the publication of this report.

Monitoring

The Trustee regularly meets with the Scheme's investment managers and monitors their activity with respect to climate risks.

Investment manager selection

The Trustee assesses the climate credentials of the Scheme's investment managers when appointing them.

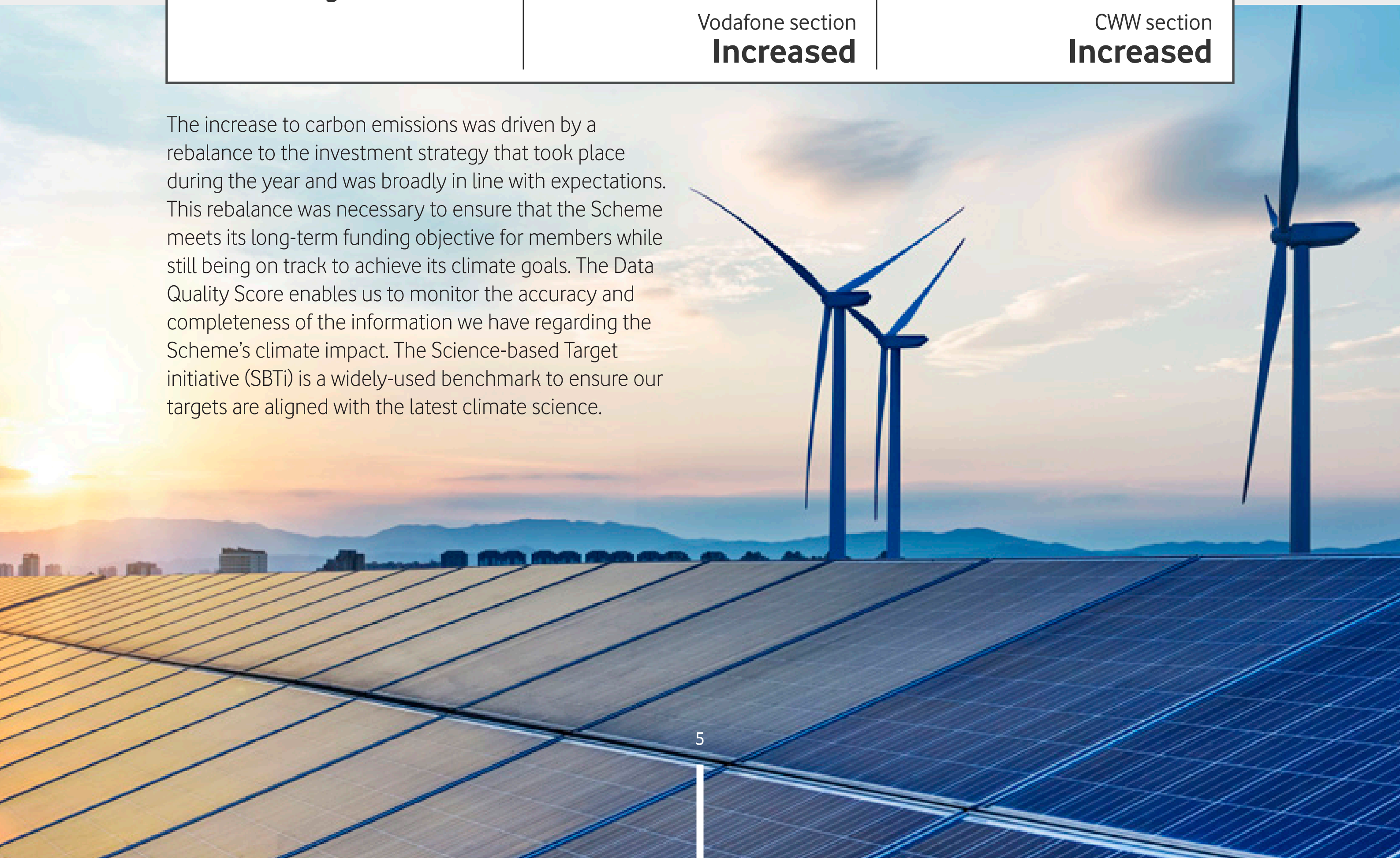
Metrics and Targets

The Trustee monitors four metrics and has two main goals for the Scheme:

Here's how **the metrics** changed compared with last year's report:

Metric	Vodafone section	CWW section
Total greenhouse gas emissions	**Increased**	**Increased**
Carbon footprint	**Increased**	**Increased**
Data Quality Score *New for 2024	**Increased**	**Increased**
Science-based Target initiative alignment	**Increased**	**Increased**

The increase to carbon emissions was driven by a rebalance to the investment strategy that took place during the year and was broadly in line with expectations. This rebalance was necessary to ensure that the Scheme meets its long-term funding objective for members while still being on track to achieve its climate goals. The Data Quality Score enables us to monitor the accuracy and completeness of the information we have regarding the Scheme's climate impact. The Science-based Target initiative (SBTi) is a widely-used benchmark to ensure our targets are aligned with the latest climate science.



Metrics and Targets
(cont.)

The Trustee monitors four metrics and has two main goals for the Scheme:

Here's how **the metrics** changed compared with last year's report:

Here are **our targets for carbon emissions**, which are unchanged since our previous TCFD Statement:

A **50% reduction in carbon emissions by 2030**

A **net zero** position by **2050**

The world is changing, and our ability to reach net zero by 2050 depends in part on governments remaining committed to previously agreed climate goals.

At the moment we're on track to achieve our targets but we will keep this under review.

Find out more

Read the full TCFD Statement from page X to lorem ipsum dolor sit amet.

Taskforce on Climate-Related Financial Disclosures (TCFD) Statement – Year Ended 31 March 2024

Executive Summary

This report has been produced by Vodafone Group Pension Trustee Limited (the "Trustee"), as the Trustee of the Vodafone Group Pension Scheme ("VGPS" or the "Scheme"), and its advisors under the requirements of the Occupational Pension Schemes (Climate Change Governance and Reporting) regulations 2021. As part of these regulations, the Scheme is legally required to produce formal disclosures in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). This report covers both Sections of the Scheme, the Vodafone Section and the Cable and Wireless Worldwide ("CWW") Section, over the period from 1st April 2023 to 31st March 2024. The Scheme is a Defined Benefit only scheme.

This report covers the following four areas of the Climate Change Governance framework:

- **Governance**: the arrangements that have been put in place around climate-related risks and opportunities.
- **Strategy**: the actual and potential impacts of climate-related risks and opportunities on the strategy, covenant and financial plans of the Scheme.
- **Risk Management**: how the Scheme identifies, assesses, and manages climate-related risks.
- **Metrics and Targets**: the metrics and targets used to assess and manage climate-related risks and opportunities.

Governance

The Trustee retains ultimate responsibility for the management of climate-related risks and opportunities. The Trustee has formalised a Climate Change Risk Management Policy ("CCRMP") to document the Trustee's approach to identifying, assessing, and managing risks specifically related to climate change. The CCRMP details the roles and responsibilities of the Trustee Board, Investment and Funding Committee ("IFC"), Vodafone In-House Pension Team ("VPT") and the Scheme's external advisors in assessing, managing, and monitoring climate-related risks and opportunities. The Policy is consistent with the Trustee's Statement of Investment Principles ("SIP") and Responsible Investment ("RI") Policy. The CCRMP is included as an appendix to this report (Appendix C).

Strategy

The Trustee considers climate-related risks and opportunities across short-, medium- and long-term time periods relevant to the Scheme, separately for both Sections of the Scheme. These risks are primarily assessed via climate scenario analysis. In preparation of the publishing of the first year's TCFD statement, the Trustee chose to carry out scenario analysis as at 31 March 2022, to align with the Scheme year end and triennial actuarial valuation. To ensure consistency with the asset analysis, scenario analysis was also carried out on the liabilities as at this date, in conjunction with an assessment of the covenant. Taking a proportionate approach and recognising that such analysis is required to be produced every three-years, the analysis was carried out on an assets-only basis for last year's report, as at 31 March 2023. The analysis has not been updated this year as the Trustee also does not believe there have been material improvements in climate scenario modelling methodology, especially as there has been growing scrutiny of climate modelling and scenario analysis over 2023 due to the assumptions involved. Further detail on this, and the analysis as at 31 March 2023, has been included in this report.

The analysis found that the Vodafone Section funding level is projected to fall under two of the three climate transition scenarios: "Fast Transition", and "Slow Transition" and increase slightly under the "No Transition" scenario. For the CWW Section the funding level is also expected to fall under a "Fast" and "Slow" transition, but the asset and liability impacts are broadly expected to offset under a "No Transition" scenario.

Under a "Slow Transition" scenario (where global temperature increases are kept below 2 degrees Celsius relative to pre-industrial levels), the funding level is projected to fall by 11.4% for the Vodafone Section and 9.5% for the CWW Section.

Risk Management

The Trustee has integrated climate-related metrics into the Scheme's wider risk management framework. The CCRMP documents the Trustee's approach to identifying, assessing, and managing risks specifically related to climate change, including setting out a Statement of Trustee's Climate-related Investment Principles. As referred to in the Statement of Investment Principles ("SIP"), the Trustee engages with its investment managers on an ongoing basis to understand its approach to ESG integration and climate-related risks, for example, during the year the Trustee met with Insight, as its largest manager, to further focus on their approach to ESG integration. The Trustee also engages with its investment consultant to understand and challenge its approach to ESG integration in their advice.

Metrics and Targets

The Trustee has set four metrics to monitor and report on:

1) Total greenhouse gas emissions of the Fund's assets ("absolute emissions metric")
2) Carbon footprint - i.e., total carbon dioxide emissions for the portfolio per million pounds invested ("intensity metric"),
3) The Partnership for Carbon Accounting Financials ("PCAF") Data Quality Score (i.e. "additional climate change metric")
4) SBTi portfolio alignment metric.

The Trustee decided to replace the "additional climate change metric" for this year's and future reports. The previous metric was to monitor the results of climate risk in the investment strategy using the Prudential Regulation Authority ("PRA") Slow Transition stress test. The key reason for the change was to the limitations in the current methodology used in the climate stress tests. The Trustee decided to choose data quality as the replacement as this metric will provide insight into the reliability of underlying climate data, thereby identifying areas of focus in the Scheme's other metrics. Additionally, reporting on data quality has now been made more readily available and is increasingly being used in the industry. The Trustee's chosen metrics are reported on as at the Scheme's year-end (31st March 2024) within this report.

The Trustee uses the results to identify the climate-related risks and opportunities which are relevant to the Scheme, considering the Vodafone and CWW Sections separately. These might include, for example, engaging with fund managers who have material carbon intensity levels or with other industry participants, and exploring low-carbon alternative investment options.

Moving from metrics to targets, the Trustee has set a climate-related "net zero" target for both Sections of the Scheme. This targets a 50% reduction in total scope 1 & 2 carbon emissions (Metric 1) by 2030 from the starting position (31 March 2022), alongside an overall target of achieving net zero carbon emissions (scopes 1 and 2) from its investments by 2050. The Trustee reviewed the ongoing suitability of the Scheme's target this year and chose to separate its scope 3 reporting from the net-zero target (further detail on this is included within the Metrics and Targets section of this report). Scope 3 emissions will still be reported, but this will be done separately rather than being combined with scopes 1 and 2.

The following pages summarise the Trustee's current position compared to the recommendations set out by the TCFD as set out in the Occupational Pension Schemes (Climate Change Governance and Reporting) regulations 2021.

Governance

The Trustee retains overall responsibility for oversight of climate related risks and opportunities but makes use of advisors to assist in carrying out these responsibilities. The roles and responsibilities of the Trustee Board and external advisors are defined in the CCRMP (Appendix C). The Trustee drafted this Policy in 2023 with the support of its investment advisor and formalised it in March 2023. The Policy is reviewed regularly (most recently by the IFC in May 2024 and the Board in September 2024) to ensure that it continues to provide an accurate description of the governance and risk management approach in respect of climate-related matters for the Scheme.

The Trustee sets aside time to discuss climate risk at Trustee board meetings throughout the year, including holding at least (but not limited to) two additional training meetings per year, where time is made available to discuss any relevant ESG developments, including discussions on climate risk. An example of climate risk-related discussions held at such meetings is how the Trustee can further understand how its investment advisor assesses climate risk within their manager research process, and challenge them as necessary. The investment advisor also brings their views on climate-related risks and opportunities to the Trustee as they deem appropriate.

Where supported by external advisors, the Trustee has challenged its advisors on their experience and expertise in being able to support the Scheme in identifying and assessing any climate-related risks and opportunities relevant to their advice. For example, in the case of investment advice, the Trustee assesses the performance of its investment advisor on the integration of ESG (which includes climate-related risk and opportunities) on an annual basis.

The processes for identifying, assessing and managing climate-related risks are in line with the Scheme's wider CCRMP.

Roles and responsibilities

The roles of the relevant parties within the Scheme's governance structure for climate change are summarised below:

Role of the Trustee Board

The ultimate responsibility for identifying, assessing, and monitoring climate-related risks and opportunities sits with the Trustee. The role of the Trustee Board is the following:

- Setting the overall investment and funding strategy and objectives and governance framework, which includes the identification, assessment and management of climate-related risks and opportunities.
- Setting climate-related objectives
- Setting climate-related metrics and climate scenario analysis
- Determining appropriate climate-related objectives in the investment consultant's annual objectives.
- Selecting, monitoring, and reviewing the investment managers
- Monitoring and overseeing its advisors and consultants

Role of the Investment and Funding Committee ("IFC")

- Reviewing proposed climate-related objectives
- Informing, monitoring, and reviewing the investment managers

- Refining materials and recommendations before they are presented to the Trustee Board
- Supporting the Board in considering climate-related risks and opportunities when setting the Scheme's funding and investment strategy

Role of the Vodafone In-House Pension Team ("VPT")

- Assisting the Trustee Board and IFC in ensuring that appropriate time is allocated to assessing climate related risks and opportunities
- Assisting in the implementation of any climate-related enhancements

Role of the external advisors

- Advising on climate-related risks and opportunities
- Provision of climate scenario and climate risk metric analysis
- Climate-related considerations are included in the advisors' annual objectives

Training received over the year

The Trustee completed the following areas of related training over the reporting year:

- **May 2023 –** Training on stewardship challenges identified by the Department for Work and Pensions ("DWP") and new statutory and non-statutory guidance, as well as how effective stewardship can be implemented. This incorporated next steps relating to stewardship to help the Scheme align with the DWP's guidance and roadmap to "best practice"
- **June 2023 –** Further training on stewardship to help the Trustee articulate and agree on key stewardship theme(s). 'Climate change,' 'corporate governance' and 'human rights' were subsequently chosen as the key stewardship themes for the Scheme. The existing stewardship wording in the Trustee's Responsible Investment ("RI") Policy was also updated to reflect the Scheme's stewardship priorities and to better align with the DWP's guidance.
- **September 2023** – Training and analysis on the second TCFD element – Strategy – for incorporation in the Scheme's inaugural TCFD report (published last year), including requirements on climate scenario analysis and analysis undertaken to assess the Scheme's full funding strategy.

Strategy

The Trustee recognises that it has a fiduciary duty to exercise its powers for a proper purpose which, in relation to pension scheme investment, means acting in the best financial interest of members. The Trustee's long-term financial objective is to retain being fully funded on the Self-sufficiency basis for the CWW Section and be fully funded on that basis by 31 December 2030 for the Vodafone Section. A central part of the strategy to achieve these objectives involves assessing risk and putting in place appropriate mitigation. The Trustee believes that climate change is one major systemic investment risk that needs to be addressed. At the same time, the Trustee recognises that solutions to mitigate the climate crisis could in themselves represent investment opportunities.

The Trustee notes that the primary responsibility is to act in the best financial interest of the Members of the Scheme. The Trustee's Responsible Investment policy therefore highlights that Environmental, Social and Governance (ESG) factors can have an impact on financial performance, and it is therefore part of Trustee's fiduciary duty to incorporate these factors into investment decisions. The Trustee believes that this helps to reduce investment risk, and in some cases enhances long-term investment returns. As such, the Trustee requires its appointed fund managers to be cognisant of climate-related risks and opportunities within their investment processes as applied to the assets of the Scheme. The Trustee sets general investment policy but delegates the responsibility for selection of specific investments to appointed investment managers. The Trustee aims to select managers that provide the skill and expertise necessary to manage the investments of the Scheme competently. The selection process includes consideration of the Manager's RI practices and consideration of ESG factors, including climate change.

The Trustee therefore considers engagement with the investment managers as the key tool which it can utilise to direct this approach and aspires to continue increasing the level of engagement with its fund managers to ensure that adequate steps are being taken in this respect. The Trustee therefore meets with its Managers throughout the year to discuss this as well as requesting updates on actions following those discussions. Insight has been the most notable of these manager meetings over the year, however the Trustee also discussed engagement with its newest Manager (funded at the end of the reporting period). The Trustee believes such engagement will protect and enhance the long-term value of its investments and incentivise the investment managers to take a long-term view of the performance of its investments. Active engagement with underlying companies in which the Scheme is invested, specifically relating to climate-related risks and opportunities, is delegated to the Scheme's investment managers. The Trustee also relies on the manager research and manager monitoring capabilities of its investment consultant, to effectively assess climate-related risks and opportunities.

In addition, the Trustee considers climate-related risks and opportunities and its potential implications on the Scheme's investment and funding strategy over the short-term, medium-term, and long-term. Throughout the investment process - from strategic asset allocation to manager selection and portfolio monitoring - the Trustee considers how these factors can be assessed and managed throughout. This was incorporated into the Vodafone Section's Multi Class Credit ("MCC") manager selection process during the year and was considered when the Trustee determined whether MCC or an alternative asset class would be most appropriate for the ongoing strategy.

The Trustee is conscious that the source of climate-related risks is likely to be varied. The Trustee has identified two specific risks which could impact the Scheme's investment and funding strategy; transition risk, and physical risk, which are described below. It is important to note that these are not the only risks that Scheme will face and there are many others that are either unknown, or not yet considered in climate analysis due to the difficulty in quantifying the risk.

- **Transition Risk:** Transition risk refers to the potential price impact on the Scheme's assets as a result of policy actions taken to encourage economies to decarbonise, with risks being different depending the shape of the pathway towards a low-carbon global economy. Policy actions are expected to affect asset values through channels such as carbon prices, and the greater adoption of renewable energy, for example. Portfolios that continue to have high exposures to carbon-intensive businesses may be exposed to higher levels of transition risk. The transition to a low-carbon economy is also expected to produce opportunities for investing in businesses that are poised to benefit from the transition, such as producers of renewable energy.

- **Physical Risk:** Physical risk refers to the potential price impact on the Scheme's assets as a result of changes in weather patterns and extreme weather scenarios, as well as from other physical effects of climate change such as rising sea levels. These include floods, hurricanes and droughts, or chronic effects, such as sustained increases in temperatures, air humidity and ocean acidity. These risks can affect the value of physical assets – in particular, property and infrastructure located in certain geographies such as coastal areas. An example of the knock-on effects of these risks is lower economic growth due to damage done to infrastructure as a result of increased natural disasters, for instance tsunamis and earthquakes. This could then lead to higher price inflation, as well as other macroeconomic tensions.

In line with the requirements of the regulations to consider climate-related risks and opportunities over different time horizons, the Trustee considers climate-related risks and opportunities and its potential implications for the Scheme's investment and funding strategy over the short-, medium-, and long-term. For example:

- Short-term risks and opportunities may include stock price movements resulting from increased regulation directed at addressing climate change (i.e. mostly transition risk).
- Over the medium term, it is expected that there will be changes in consumer spending habits following changes in technology, such as the uptake in electric vehicles or a reduction in overseas travel (i.e. some transition and some physical risk)
- Longer-term risks may include physical damage to real assets as a result of rising sea levels for coastal property or infrastructure assets; there may be opportunities for outperformance for organisations that put in place strategies to mitigate these potential risks well in advance of them materialising (i.e. mostly physical risk).

The table below sets out the time horizons chosen by the Trustee.

Time Horizon	Years	Rationale
Short Term	3 years	Set to align with the Scheme's rolling 3 year actuarial valuation process. This short term focus allows the Trustee to consider the transition risks that the Scheme is exposed to.
Medium Term	5 years	Typically set to align with the Scheme's primary or long-term funding targets. This medium-term scenario allows the Trustee to assess the risks over the period that the Scheme's assets are more invested in return seeking assets and therefore the period where the investment strategy may be more susceptible to adverse scenarios.
Long Term	10 years	This time horizon is set to reflect the long-term period consistent with a reasonable timeframe to buyout.

As mentioned above, in preparation of the publishing of the Scheme's first TCFD statement, the Trustee chose to carry out scenario analysis on both assets and liabilities as at 31 March 2022, to align with the Scheme year end and triennial actuarial valuation. Acting in a proportionate manner and recognising that such analysis is required to be produced every three-years, the analysis was carried out on an assets-only basis as at the previous year-end, 31 March 2023. The Trustee also does not believe there have been material improvements in climate scenario modelling methodology, especially as there has been growing scrutiny of climate modelling and scenario analysis over 2023 due to the assumptions involved (which underestimate the likely implied temperature rise and overlook climate tipping points). As such, the Trustee considers the scenario analysis as at 31 March 2022 and 31 March 2023 to be broadly representative of the position of the Scheme for the 2024 TCFD statement and, as such, has decided to not refresh the analysis this year. With input from the Scheme's advisors, the Trustee will review the suitability of the scenario analysis again at the next Scheme year end.

Therefore, per the most recent scenario analysis as at 31 March 2023, considering the Scheme's diversified investment strategy, high levels of liability hedging and strong covenant, the Trustee believes that the overall funding strategy would be resilient to a range of climate outcomes.

Further detail on the scenario analysis completed as at 31 March 2022 and 31 March 2023, and included in the 2023 TCFD statement, has been included below.

Climate scenario analysis

As part of considering climate-related risks and opportunities and their potential implications for both Section's investment and funding strategy, the Trustee, supported by its advisors, performs scenario analysis on the funding positions of both Sections.

When first performing such analysis, as at 31 March 2022, the Trustee incorporated each of the Scheme's assets, liabilities, and covenant. This helps to ensure that climate-related factors are incorporated throughout the Trustee's funding and risk management process, from strategic asset allocation to manager selection and portfolio monitoring, as well as considering potential risks to the covenant of the Fund. Acting in a proportionate manner and reflecting that the effects of such scenarios on the liabilities and covenant are likely to change less over relatively short time periods than they are for the assets, the Trustee's scenario analysis as at 31 March 2023 focuses on a single scenario ("slow transition") on the assets only.

The results as at 31 March 2022 in regards to each of the assets, liabilities and covenant are disclosed below. The asset analysis is performed by the Scheme's investment advisor, the liability analysis by the Scheme Actuary and the covenant analysis by the Scheme's Covenant advisor.

The Trustee, assesses the impact of the identified climate-related risks and opportunities on the Scheme's investment strategy and funding strategy on an annual basis, or more frequently, as required. In order to assess the impact on the Scheme's assets, the Trustee undertakes triennial scenario analysis consistent with the PRA's Life Insurance Stress Tests ("the PRA stress test scenarios"), as recommended by the Pensions Climate Risk Industry Group ("PCRIG"). However, the Trustee will revisit the choice of scenarios next year when the analysis is refreshed and consider the most appropriate scenarios to use at that time. The stresses currently used are designed to demonstrate the impact to the value of the Scheme's assets under three scenarios. The scenarios modelled are defined in terms of the pace and extent of the world's response to climate risks. The scenarios are summarised below:

- Scenario A (Fast Transition): Abrupt transition to the Paris-aligned goal occurring in three years (temperature increase kept below 2 degrees Celsius relative to pre-industrial levels).

- Scenario B (Slow Transition): Orderly transition to the Paris-aligned goal occurring by 2050 (temperature increase kept below 2 degrees Celsius relative to pre-industrial levels).

- Scenario C (No Transition): A no-transition scenario occurring in 2100 (temperature increase in excess of 4 degrees Celsius relative to pre-industrial levels).

The results of the scenarios provide the Trustee with an overview of how resilient the investment strategy is with regards to various climate change outcomes. The Trustee is aware this does not allow for changes within the strategy that are expected over that time, for example de-risking activities. The Trustee carried out an assessment of the Scheme's full funding strategy as at 31 March 2022. The results are summarised below.

Vodafone Section:

Funding level stress	Scenario A: Fast Transition	Scenario B: Slow Transition	Scenario C: No Transition
Assets only	-3.2%	-3.6%	-5.3%
Liabilities (mortality) only	-8.0%	-8.0%	+5.9%
Total (assets and liabilities)	**-10.9%**	**-11.4%**	**+0.6%**

*Assets only stress includes interest rate and inflation stresses on liabilities, and corresponding impact on hedge

CWW Section

Funding level stress	Scenario A: Fast Transition	Scenario B: Slow Transition	Scenario C: No Transition
Assets only	-1.5%	-1.8%	-3.7%
Liabilities (mortality) only	-7.6%	-7.6%	+4.0%
Total (assets and liabilities)	**-9.0%**	**-9.5%**	**+0.2%**

*Assets only stress includes interest rate and inflation stresses on liabilities, and corresponding impact on hedge

For both Sections, the funding level is expected to reduce under the “Fast” and “Slow” transition scenarios, with the impact of reduced mortality (i.e., increasing longevity) adding to a fall in the Scheme assets.

The funding level is expected to marginally increase under the “No Transition” scenario for both Sections, as a result of significantly increased mortality (i.e. reducing longevity) more than offsetting the corresponding fall in assets.

For both Sections, the largest reduction in funding level is under the “Slow Transition” scenario where the impact of increasing life expectancy is most significant (alongside the “Fast Transition” scenario), while the assets are also expected to be most negatively impacted primarily as a result of a mixture of physical and transition risks.

Under asset-only stresses, both sections of the Scheme are more exposed to the “No Transition” than the “Fast Transition”, suggesting the portfolio is most exposed to physical climate change-related risks than transition climate change-related risks. This is primarily driven by significant allocations to credit-based assets, which are typically more exposed to physical risks.

The size of the asset stresses are consistently lower for the CWW Section, reflecting the Section’s de-risked position compared to the Vodafone Section. We would expect to see the size of the stress tests reduce over time for both sections as the investment strategy de-risks.

Through investing in a way which is aligned with the goals of the Paris Agreement by limiting global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C, the Trustee seeks to mitigate the physical risk from a “No Transition” scenario. Further detail of the scenario analysis is set out in Appendix A.

As part of the scenario analysis on the full funding strategy the Trustee engaged with the covenant advisor, Penfida, to consider the sponsoring employer’s exposure to climate risks, and thus the possible effect on the covenant strength. The overall conclusion was that there were some short to medium uncertainties which became greater over the longer term and Penfida recommended that the Trustee factor these in when setting a buy-out target, in order to reduce the Scheme’s exposure to those uncertainties.

The Trustee recognises that the potential impact on the covenant of the effects of climate change may influence the near-term or longer-term funding strategy decisions made in relation to the Scheme. Further information on this is included in Appendix A.

The Trustee will consider the results of all aspects of the scenario analysis in future decision-making.

Risk Management

As set out in section "2. Strategy", the Scheme is exposed to climate-related risks in the form of transition and physical risk. The Trustee considers the impact of these climate-related risks on all of the assets in which it invests by conducting and reviewing the results of climate-related stress tests on a triennial basis.

The Trustee also monitors relevant climate metrics as set out under the Department for Work and Pensions' ("DWP's") adoption of the recommendations of the TCFD (and as further discussed under section "4. Metrics and Targets"). This allows the Trustee to better identify and manage the climate-related risks which are relevant to the Scheme on an annual basis.

For all appointed fund managers, evaluation of ESG risk management, which includes climate-related risks, is an explicit part of both the selection process and continued due diligence or monitoring that the Trustee undertakes. The Trustee also relies on the manager research capabilities of its investment advisor in order to effectively assess climate-related risks and opportunities.

The Trustee has formalised a Responsible Investment policy to define its voting and engagement policy, including its delegation and approach to collaborative engagement, and its assessment framework for monitoring the Scheme's investment managers and taking appropriate action.

In line with the Trustee's commitment to integrating ESG issues into stewardship practices, the Trustee will act in accordance with the Responsible Investment policy and, where relevant, expects its asset managers to actively engage with companies to better manage climate change associated risks.

The Trustee believes that engagement is an effective way of implementing positive change and is an important part of protecting value for VGPS's Members – The Trustee believes that when companies are governed properly, they are more likely to be sustainable in the long-term.

The Trustee's policy is to delegate responsibility for the exercising of rights (including voting rights) attaching to investments to the investment managers and to encourage the managers to exercise those rights. The fund managers exercise this discretion in accordance with its own corporate governance policies and current best practice, including the UK Stewardship Code. Where relevant, the Trustee expects its managers to use voting rights to reflect the principles set out in both the Scheme's Statement of Investment Principles and Responsible Investment Policy.

The Trustee encourages its managers to engage with investee companies and promote adherence to best practice in corporate governance. The Trustee utilises the UN Sustainable Development Goals ("UN SDGs") as a high-level framework for its approach to investing responsibly from an effective stewardship and engagement point of view. The Trustee has considered which of the SDGs, if not achieved, would have the biggest financial impact on risks and returns as a way of focusing its RI strategy. These priority themes, asdescribed in the Trustee's Responsible Investment Policy, are climate change, human rights and corporate governance.

In line with the above, the Trustee started assessing the stewardship activities of its investment managers on an annual basis. In October 2023, the Trustee engaged with the Scheme's largest manager exposure (Insight) to encourage a dialogue focussed around its stewardship efforts in respect of each of the Scheme's chosen stewardship themes. The Trustee also engaged with Insight to obtain further disclosures of the manager's efforts regarding stewardship and engagement with sovereign debt issuers as a result of the growing importance of this investment class for maturing pension schemes (and therefore the need for this to feature strongly as part of investment managers' stewardship approaches). As part of this assessment, the Trustee was provided additional information on Insight's engagement with the government, including details on their active membership in industry-wide groups to influence government policy and climate action, their responses to government consultations with relevance for climate policy in addition to examples of their direct engagement with companies. The Trustee also analysed Insight's corporate ESG risk framework which includes their assessment of the material risks associated with human rights. This assessment marked the start of an ongoing dialogue between the Trustee and Insight, with an update on agreed focus areas being provided in late 2024.

In addition, the Trustee requires the Scheme's external advisors (namely the investment consultant, the actuary and the covenant advisor) to advise on climate-related risks and opportunities, including, but not limited to, providing relevant training, information concerning market developments and integrating climate-related considerations in setting the Scheme's investment strategy. The responsibilities of the investment advisors were set out in more detail in Section 1: Governance.

Although the Trustee is ultimately responsible for making decisions on strategic matters including investment and funding strategy and investment manager selection, it relies on its advisors and consultants for advice on such matters. The Trustee currently has in place objectives for assessing the performance of its investment advisor, of which ESG (and climate) form part of. The Trustee is committed to expanding this assessment across all advisors and ensuring ability to advise on climate-related matters is considered when appointing and assessing its advisors in future.

Metrics & Targets

Metrics

The Department for Work and Pensions ('DWP') guidance for pension schemes submitting TCFD reporting suggests that the following metrics are chosen: an absolute emissions metric (total greenhouse gas emissions), a carbon intensity metric (carbon footprint), an additional non-emissions based metric, and a portfolio alignment metric.

The Trustee has chosen the following metrics:

DWP suggested metric	Metric selected	Rationale
Absolute emissions	Total greenhouse gas emissions[1]	This is the absolute emissions metric recommended by the DWP.
Emissions intensity	Carbon Footprint[2]	This is the emissions intensity metric recommended by the DWP.
Additional metric	The Partnership for Carbon Accounting Financials (PCAF) Data Quality Score[3]	This metric has been chosen on the basis that it monitors the reliability of companies' emissions data, scoring them one to five – with one representing the highest quality of independently verified emissions data.
Portfolio Alignment	Science-based target initiative ("SBTi")[4]	This metric examines whether a voluntarily disclosed company decarbonisation target is aligned with a relevant science-based pathway. There is evidence that companies that have set science-based targets are delivering emissions reductions in line with their ambitions, making this a key metric to monitor to drive positive change.

The Trustee is provided with climate reporting and interpretation on the above metrics on an annual basis by its investment consultant Redington. The metrics will additionally be considered when the Trustee is reviewing the investment strategy and they will be reported on an annual basis in future TCFD reports. The Trustee reviews its selection of metrics on an annual basis to ensure they remain appropriate for the Scheme.

[1] Measurement of the CO2e emissions of a fund per million pounds of enterprise value including cash ("EVIC") using Scope 1, Scope 2 and Scope 3 emissions. Given a company's direct Scope 1 emissions will inevitably be another company's indirect Scope 3 emissions, aggregating the individual Scope emissions results in a higher number of emissions than exists. Presently there is no universally agreed upon methodology for mitigating double counting at fund level, and therefore Scope 1 & 2 emissions are reportedly separately from Scope 3 emissions. This metric may be used to assess a fund's contribution to global warming versus other funds.
[2] Measurement of the Total greenhouse gas emissions, per million pounds of EVIC (tCO2e / £m invested)
[3] The scoring system ranges from one to five, with one representing the highest data quality, which involves independently verified emissions data, and five indicating the lowest quality, characterised by estimated emissions data derived from industry averages.
[4] SBTi examines whether a company's voluntarily disclosed decarbonisation target is aligned with a relevant science-based pathway. The scores are binary with a yes or no assessment.

In recognition of evolving industry standards, the Trustee has updated its non-emissions-based metric for the year-ending 31 March 2024. Whereas previously the Trustee monitored a measure of climate risk (the output of the PRA “Slow Transition” stress test), the Trustee now reports on data quality through the PCAF data quality score. The change in metric is reflective of progress made across the industry in terms of data provision and quality; the PCAF data quality score was not previously available. Furthermore, monitoring data quality as opposed to climate risk provides the Trustee with greater insight into the reliability of its underlying emissions data. This in turn enhances the reliability of the output from the Scheme’s emissions-based metrics. The Trustee notes that the change in metric does not result in any loss of information to the Trustee as it reviews the Scheme’s exposure to climate risk through the climate scenario analysis which is conducted at least every three years, and included within the Strategy section of this report.

1. Total Emissions

The Trustee monitors the total greenhouse gas emissions of the Scheme’s assets. Greenhouse gases are gases in the Earth’s atmosphere that are capable of absorbing infrared radiation and thereby trap and hold heat in the atmosphere. The main greenhouse gases are: carbon dioxide (“CO2”), methane, and nitrous oxide.

There are three scopes of carbon emissions:

- **Scope 1** emissions are direct emissions from an entity’s owned or operationally controlled sources;
- **Scope 2** emissions are those from the use of electricity purchased by an entity;
- **Scope 3** emissions are indirect emissions from the use of company’s products, or any other emissions across its supply chain.

For a pension scheme, scope 1 emissions include the use of gas fuel and refrigerants in the office whilst scope 2 emissions include the use of electricity in the office buildings. The primary emissions a pension scheme therefore relate to its Scope 3 emissions, i.e., the emissions of the assets which are held by the Scheme. The Trustee monitors the Scope 1,2 & 3 emissions of the investments held by the Scheme and does not report on its own Scope 1 & 2 emissions.

The Trustee notes that Scope 3 emission data is complex and that reporting in this area is still evolving. This means measuring Scope 3 emissions is currently less reliable than the other Scopes; it relies on several assumptions and emissions are largely estimated rather than being reported specifically. Nevertheless, the Trustee has opted to include Scope 3 emissions in this year’s report, as well as all its previous reports, but has separated it from the other Scopes. Note that LDI and cash assets are excluded from the analysis due to carbon accounting methodologies not being sufficiently developed in these areas.

Further detail on methodology is set out in Appendix B.

2. Emissions Intensity

The Trustee monitors carbon footprint as its emissions intensity metric. Carbon footprint measures the carbon efficiency of a portfolio in terms of emissions per million pounds invested. It normalises the total financed emissions for the value of the portfolio. In other words, as it shows the emissions per millions of pounds invested, the metric is comparable between investments of different sizes.

At a portfolio level, the emissions intensity measures are calculated as the average of the emissions intensity of the underlying holdings, weighted by the value of each holding. A portfolio with a high emissions intensity will have a steeper route towards decarbonisation than a less intensive one. Hence, measuring the emissions intensity across the Scheme is useful in order to gauge how difficult (or easy) it will be to progressively decarbonise its portfolios.

Differences in portfolio emissions intensities are driven by differences in sector and company exposure. Portfolios with higher exposures to high-carbon sectors such as utilities, non-energy materials, energy and industrials tend to exhibit higher emissions intensities.

3. Additional Climate Change

Over the year the Trustee updated its third "non-emissions" based metric to the PCAF Data Quality score.

The PCAF Data Quality score monitors the reliability of companies' emissions data. The scoring system used ranges from one to five, with one representing the highest data quality, which involves independently verified emissions data, and five indicating the lowest quality, characterised by estimated emissions data derived from industry peers. The Trustee will report this score on an annual basis, monitoring progress over time.

The Trustee decided to adopt this metric in line with evolving industry standards and best practice as data quality and availability are often cited as key issues with climate-related data. Monitoring data quality provides useful context for interpreting the emissions-based metrics and reviewing the data quality scores aides the degree of conviction the Trustee has in the data being used. The Trustee believes that over time, better data should allow it to make better informed decisions.

4. Portfolio Alignment

The Trustee has adopted the Science Based Target's initiative as the Scheme's portfolio alignment metric, which captures a company or issuer's progress against a self-developed decarbonisation target using science-based methodology. The target can be aimed at one or all of; the short term, long term or Net Zero, with each company being scored with a binary yes or no assessment on the following target categorisations: "SBTi Approved 1.5 C", "SBTi Approved Well Below 2 C" or "SBTi Approved 2 C". Each of the categorisations all denote the implied global temperature increases that coincide with the decarbonisation target. The "SBTi Approved 2 C" categorisation will be gradually phased out in line with the initiative's raised ambition to 1.5C. In the immediate term, the Trustee will continue to report under the "SBTi Approved 2 C" categorisation to capture companies currently on a 2C path until they increase its target ambition to 1.5C in the next few years.

Target

The Trustee has formally set a climate-related "net zero" target for both Sections of the Scheme. This targets a 50% reduction in total scope 1 & 2 carbon emissions (Metric 1) by 2030 from the starting position (31 March 2022), alongside an overall target of achieving net zero carbon emissions (Scopes 1 and 2) from its investments by 2050. The Trustee decided to separate out (but still monitor) scope 3 emissions from the net-zero target due to the evolving nature of reporting in terms of scope 3 emissions, as outlined above in this section. The Trustee's ultimate target is in line with the United Nations Framework Convention on Climate Change (UNFCCC). In setting this target the Trustee has considered whether to aspire to a target that is nearer to the Sponsor's target to achieve net zero carbon emissions from its operations by 2040. The Trustee intends to bring this 2050 date closer if possible but does not yet believe the investment landscape has an investible toolkit to do so.

Metrics

The results of the analysis as at 31 March 2024 using each Section's asset allocation at the time are shown below. The Scheme's buy-in insurance policy assets, LDI, and cash assets are excluded from the analysis due to carbon accounting methodologies not being sufficiently developed in these areas. More detail on asset coverage is provided in the Appendix.

Vodafone Section:

Total[1]	Absolute Carbon Emissions (tCO_2e)		Carbon Footprint (tCO_2e/EVIC £m		PCAF Data Quality Score	Science Based Targets Initiative Rating
	Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3		
31/03/2023	62,237	388,693	52.4	327.1	N/A[2]	4.7%
31/03/2024	80,707	480,080	66.6	396.0	2.2	8.7%

[1] *Assets only basis, excluding buy-ins, LDI and cash (i.e. return-seeking assets only), including gross notional exposure of the synthetic equity position*

[2] *PCAF data quality score as at 31 March 2023 is not available as the metric was introduced in 2024.*

CWW Section:

Total[1]	Absolute Carbon Emissions (tCO2e)		Carbon Footprint (tCO2e/EVIC £m		PCAF Data Quality Score	Science Based Targets Initiative Rating
	Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3		
31/03/2023	25,804	141,855	42.3	232.6	N/A[2]	2.7%
31/03/2024	26,325	183,704	41.2	287.3	2.2	8.2%

[1]Assets only basis, excluding LDI and cash (i.e. return-seeking assets only)

[2] PCAF data quality score as at 31 March 2023 is not available as the metric was introduced in 2024.

The absolute carbon emissions reported above demonstrate the total share of direct and indirect emissions for which the Fund's assets are responsible (based on Scope 1 & 2 and Scope 3 emissions separately).

The Fund's carbon footprint reveals how carbon efficient the portfolio is per million pounds invested (based on Scope 1 & 2, and Scope 3 emissions separately). This measure provides an insight into the carbon intensity of the Fund's assets.

The PCAF data quality score provides an indication of how much quality there is within the carbon data with a lower number highlighting a higher quality level. The scoring system used ranges from one to five, with one representing the highest data quality, which involves independently verified emissions data, and five indicating the lowest quality, characterised by estimated emissions data derived from industry peers.

The SBTi portfolio alignment metric indicates the proportion of the Fund's assets that have declared Net Zero or Paris-aligned targets. This has been calculated using the line-by-line equity holding data of each fund. Absolute and intensity metrics have been modelled at an asset class level. Further details can be found in Appendix B. The expectation is that the output will evolve over time as data availability is likely to improve. As and when new data becomes available, the Trustee will review the targets which have been set to ensure they remain feasible in light of this new information.

Trustee's assessment of metrics as at 31 March 2024

The Trustee observes that absolute carbon emissions have increased over the year to 31 March 2024, most notably for the Vodafone Section. This is largely driven by a rebalance to the investment strategy that took place during the year. A £220m allocation that was made to the Hermes Unconstrained Credit Fund in March 2024, funded from surplus LDI collateral (to increase the Section's expected return collateral and improve portfolio diversification). Emissions from LDI are not captured as part of the metrics above, and so the increase in emissions is broadly in line with expectations.

The Vodafone Section's overall portfolio also saw an increase in its Scope 1 & 2 carbon footprint over the year, again this was largely driven by the allocation the Hermes Unconstrained Credit Fund in March 2024. This portfolio invests in High-Yield credit assets which are typically more carbon intensive than Investment grade assets. There was a modest decrease in the Scope 1 & 2 carbon footprint of the CWW Section's overall portfolio, driven by a decreased allocation to the Scheme's illiquid holdings returning capital, as well as redemptions from the Coller Capital and Nephila Iron Catastrophe mandates.

The PCAF Data Quality Score for both Sections' portfolio is c.2.2, indicating that the majority of emissions data reported by underlying publicly listed companies is in line with the Greenhouse Gas Protocol, but unverified.

The Vodafone Section's total SBTi score is 8.7%, meaning that 8.7% of portfolio companies have had their climate targets approved by the SBTi. This is an improvement from last year's score of 4.7%. Similar results have been observed for the CWW Section which has a total SBTi score of 8.2%, representing an improvement from last year's score of 2.7%. The LGIM All World Equity Index Fund and the Insight buy and maintain mandate have the highest scores for the Vodafone and CWW Sections respectively. This is to be expected, given SBTi submissions are voluntary and are performed only by companies that issue public debt/equity.

The Trustee will continue to consider the results in identifying climate-related risks and opportunities which are relevant to the Scheme. These might include, for example, engaging with fund managers who have material carbon intensity levels or with other industry participants, exploring low-carbon alternative investment options, and updating investment guidelines for managers where the Trustee has discretion to make such changes.

Target

The table below displays the Scheme's position against its targets as at 31 March 2024.

Emissions Target	Scope 1 & 2 Emissions at start tCO2e at 31 March 2022	Scope 1 & 2 Emissions Target tCO2e 31 March 2030	Actual Scope 1 & 2 Emissions at current date tCO2e 31 March 2024	Is the Section on track to achieve its 50% reduction by 2030 target?
Vodafone Section	137,306	68,3653	80,707	Yes
CWW Section	87,335	43,668	26,325	Yes

The Scheme is therefore on track against its targets as at 31 March 2024.

The Trustee does and will continue to consider the portfolio's progress and position against this target when reviewing the investment strategy.

Note: All analysis is provided by Redington Ltd ("Redington"), and the data in the report is sourced from MSCI©. Please refer to the data disclaimer in Appendix B.

Appendix A: Scenario Analysis

Asset scenario analysis

As part of its 2020 biennial stress tests, the Bank of England's Prudential Regulation Authority ("PRA") conducted an exploratory exercise to test the impact of future climate change scenarios on the assets and liabilities of (re)insurers, using predictions by the intergovernmental Panel on Climate Change ("IPCC") and academic literature as the basis for their modelling assumptions.

Using the same methodology, Redington has constructed similar tests that allow the Trustee to examine the impact on the funding position, via the effect on asset values, of the Scheme under three scenarios.

The magnitude of each of the physical and transition shocks varies across industries under each scenario, meaning some assets may fare better or worse under one scenario compared to another. For "Fast Transition": the asset downside comes almost entirely from transition risk. For "Slow Transition": the asset downside comes from a mix of transition risk and physical risk. For "No Transition": the asset risk is entirely physical risk.

The Trustee notes that two of the three key liability-related risks (interest rates and inflation) are suitably hedged via the Scheme's LDI strategy and thus the Scheme is not overly exposed to changes in these metrics. For this reason, it has been assumed that climate-related effects on interest rate and inflation risk across the assets and liabilities fully offset each other.

In terms of the assumptions made under these scenarios, the PRA recognised that feedback loops between climatic shocks and structural economic change need to be incorporated when assessing the financial impacts on businesses of physical and transition risk under each emissions scenario. However, due to existing modelling and data constraints, this is a complexity that is purposely excluded from the modelling.

There is also an acceptance that the timing and sequence of financial impacts will be complex, as behavioural changes could result in physical risks preceding transition risks and vice versa. For the purpose of simplicity, where an asset is subject to both physical and transition risk, the shocks are applied consecutively, with the physical shock applied second.

Liability scenario analysis

The Scheme's actuary, Mercer - with the assistance of their partners Risk Management Solutions, Inc ("RMS") - have provided the Trustee with the estimated mortality impact on the Scheme's liabilities under four scenarios. Under each of the scenarios provided life expectancy is anticipated to be affected, with each age cohort affected differently under relevant scenarios. These scenarios, and how they compare to the relevant scenarios selected by Trustee is set out in the table below. Under the "Fast" and "Slow" transitions, the impact is expected to be the same, with overall life expectancy anticipated to improve and result in an increase in the Scheme liabilities for each Section. Under the "No Transition" scenario life expectancy is expected to fall drastically for younger members, resulting in an overall reduction in the liabilities.

Scenario	Asset-side Scenario Equivalent	Life Expectancy Change		Liability Impact	
		Age 25	Age 65	Vodafone Section	CWW Section (uninsured)
Rapid Transition	Fast Transition	Nil / + 1 month	+21 months	+9.1%	+7.9%
Orderly Transition	Slow Transition				
Limited Transition	N/A	-13 months	+11-12 months	+3.1%	+3.3%
Failed Transition	No Transition	-59 months	-3 months	-6.0%	-3.7%

Covenant scenario analysis

As part of the scenario analysis on the full funding strategy the Trustee engaged with the covenant advisor, Penfida, to consider the sponsoring employer's exposure to climate physical and transition risks, and thus the possible effect on the covenant strength. The Trustee recognises that the potential impact on the covenant of the effects of climate change may influence the near-term or longer-term funding strategy of the Fund.

To align with the stresses applied to both the assets and the liabilities, Penfida considered 3 climate scenarios and how they would apply to the sponsoring employer;

- Smooth Transition (consistent with the "Slow Transition" scenario)
- Disruptive Transition (consistent with the "Fast Transition" scenario), and;
- Business as Usual (consistent with the "No Transition" scenario)

The analysis suggests that short term climate-related covenant risks are potentially low, with longer term climate-related risk slightly higher, and that while the impact of both transition risks and physical risks are minimal in the short term, these are likely to built and become more substantial over longer time horizons. Overall, based on information available at the time of the analysis (June 2022) the climate-related impact of both transition and physical risks is expected to grow significantly over the long term time horizon (2035-50) and impact the sponsoring employer over over all three scenarios.

In the event of more extreme climate scenarios, particularly the “No Transition” case, it is expected to be likely that there are significantly greater covenant challenges both from physical risk and also disruption to the wider geopolitical and economic climate. As such Penfida concluded that, given the large uncertainties surrounding climate change (i.e. future policy action and the actual impact of climate change) over the longer term, that it would be prudent for the Trustees to seek to reduce the time it takes to reach full buyout funding to limit the impact of climate change, in particular before 2035.

Appendix B: Carbon Footprint analysis

Climate reporting as of 31 March 2024 can be found on the following pages. This reporting includes the chosen first, second and fourth metrics as described under "4. Metrics and Targets".

As described in the "Metrics and Targets" section of this paper, where possible and where there is reasonable data coverage, the Trustee's preference is to monitor 'line-by-line' emissions reporting for funds where possible. However, for funds with less than 50% coverage and illiquid assets, the Trustee recognises that it is more suitable to monitor 'asset class level' carbon estimates in the absence of reliable, reported line-by-line emissions data from MSCI. The Trustee notes that using asset class modelling of emissions for assets where this data is not available enables a more holistic view of the Fund's total portfolio emissions, albeit recognising that the modelled data is not perfect. The investment advisor will be engaging with the Scheme's investment managers to work with them to help improve the data coverage going forward.

The asset class modelling of emissions has been provided by Redington and is based on asset class 'building blocks'. These are either calculated directly using a given index's underlying holdings emissions (such as using MSCI ACWI as a proxy for a broad equity fund) or in some cases these indices are used and extrapolated to other asset classes based on given assumptions (such as using the emissions of infrastructure firms within an index to proxy an infrastructure fund).

Vodafone Section:

Fund	Fund Value (£m)	MSCI Climate Metrics Coverage %	Carbon Emissions (tCO2e)				Carbon Intensity (tCO2e / EVIC £m)			
			Current – Scope:		Previous – Scope:		Current – Scope:		Previous – Scope:	
			1+2	3	1+2	3	1+2	3	1+2	3
Liquid Markets (Equities)										
Insight Synthetic Equity Portfolio	79.0	-	33,994	232,105	32,724	223,438	59.9	409.3	59.9	409.3
LGIM All World Equity Index Fund (75% GBP Hedged)	15.7	88.0%	854	6,007	775	5,637	54.6	383.7	59.2	430.5
Liquid and Semi-Liquid Credit										
Insight Active Corporate Bond Portfolio	233.9	88.5%	7,514	61,991	7,628	59,480	32.1	265.1	33.6	261.7
Insight High Grade ABS Fund	50.0	-	1,991	13,279	-	-	39.8	265.6	-	-
Federated Hermes Unconstrained Credit Fund	220.1	-	29,694	129,697	-	-	134.9	589.3	-	-
Illiquid Credit										
Aviva Investors Lime Property Fund	7.5	-	52	378	364	2,675	6.8	50.2	6.8	50.2
Illiquid Markets										
Equitix Fund V	59.0	-	6,520	33,303	5,919	15,355	110.5	564.6	103.7	269.0
Greencoat Solar II LP	51.7	-	78	2,368	86	2,613	1.5	45.9	1.5	45.9
Nephila Cassiopeia Fund	7.4	-	11	951	148	13,201	1.4	127.9	1.4	127.9
TOTAL PORTFOLIO*	**724.2**		**80,707**	**480,080**	**62,237**	**388,693**	**66.6**	**396.0**	**52.4**	**327.1**

* Total Portfolio stress calculated as a percentage of total asset exposure (including synthetic equity gross exposure), excluding Cash, LDI and Buy-ins.
All "Current Total Portfolio" figures in this table are weighted averages with the exception of "Fund Value" and "Absolute Carbon Emissions (tCO2e)".
"Absolute Carbon Emissions (tCO2e)" is calculated using the notional value of the fund. "Fund Value (£m)" shows the mark-to-market value of the fund.
"Previous" figures show climate metrics from 12 months prior to "Current" figures. Fund-level "Previous" figures may not sum to the "Previous Total Portfolio" figures because the "Total Portfolio" values may contain funds that have now been divested from and not reported in this table.
Carbon metrics are proxied where there is insufficient data for funds. In these instances, no figure is shown for MSCI Climate Metrics Coverage.
ESG and MSCI Carbon Metrics meet the current minimum UK DWP's TCFD-aligned "Metrics and Targets" regulations. However, regulations are subject to change. Redington monitors developments closely.

Fund	Fund Value (£m)	Science Based Targets initiative Rating		PCAF Data Quality Score	
		Current	Previous	Current	Previous
Liquid Markets (Equities)					
Insight Synthetic Equity Portfolio	79.0	-	-	-	-
LGIM All World Equity Index Fund (75% GBP Hedged)	15.7	36.6%	34.8%	2.06	-
Liquid and Semi-Liquid Credit					
Insight Active Corporate Bond Portfolio	233.9	24.1%	22.3%	2.22	-
Insight High Grade ABS Fund	50.0	-	-	-	-
Federated Hermes Unconstrained Credit Fund	220.1	19.8%	-	2.13	-
Illiquid Credit					
Aviva Investors Lime Property Fund	7.5	-	-	-	-
Illiquid Markets					
Equitix Fund V	59.0	-	-	-	-
Greencoat Solar II LP	51.7	-	-	-	-
Nephila Cassiopeia Fund	7.4	-	-	-	-
TOTAL PORTFOLIO*	**724.2**	**8.7%**	**4.6%**	**2.17**	**-**

* Total Portfolio stress calculated as a percentage of total asset exposure (including synthetic equity gross exposure), excluding Cash, LDI and Buy-ins.
All "Current Total Portfolio" figures in this table are weighted averages with the exception of "Fund Value" and "ITR" (where it is presented).
"Previous" figures show climate metrics from 12 months prior to "Current" figures. Fund-level "Previous" figures may not sum to the "Previous Total Portfolio" figures because the "Total Portfolio" values may contain funds that have now been divested from and not reported in this table.
Where presented, "Science Based Target initiative (SBTi)" or "TPI" scores are all based on lookthrough data where it is available and never proxied. "ITR" is only proxied where there is insufficient data.
Where presented, the SBTi score reflects only the long positions within a portfolio.
ESG and MSCI Carbon Metrics meet the current minimum UK DWP's TCFD-aligned "Metrics and Targets" regulations. However, regulations are subject to change. Redington monitors developments closely.
The PCAF data quality score is a system used to assess the quality of data used to calculate greenhouse gas emissions from financial activities, with 1 being the highest quality data and 5 being the lowest quality data.

CWW Section:

Fund	Fund Value (£m)	MSCI Climate Metrics Coverage %	Carbon Emissions (tCO2e)				Carbon Intensity (tCO2e / EVIC £m)			
			Current – Scope:		Previous – Scope:		Current – Scope:		Previous – Scope:	
			1+2	3	1+2	3	1+2	3	1+2	3
Liquid and Semi-Liquid Credit										
Insight Active Corporate Bond Portfolio	224.3	89.2%	5,171	54,443	3,398	19,432	23.1	242.7	26.9	154.0
Insight High Grade ABS Fund	222.7	-	8,872	59,161	4,738	31,593	39.8	265.6	39.8	265.6
Illiquid Credit										
Aviva Investors Lime Property Fund	7.0	-	48	350	337	2,478	6.8	50.2	6.8	50.2
TCW Securitized Opportunities	55.6	-	5,012	27,073	5,466	29,525	90.2	487.0	90.2	487.0
Aviva Investors REaLM Ground Rent Fund	21.2	-	145	1,062	178	1,311	6.8	50.2	6.8	50.2
Illiquid Markets										
Equitix Fund V	47.6	-	5,261	26,876	4,777	12,392	110.5	564.6	103.7	269.0
Fortress Private Equity	5.8	-	780	5,381	796	5,488	134.4	926.9	134.4	926.9
Greencoat Solar II LP	41.7	-	63	1,911	70	2,108	1.5	45.9	1.5	45.9
JPM PEG Venture Capital II	.8	-	102	704	120	826	134.4	926.9	134.4	926.9
JPM PEG Venture Capital III	5.6	-	755	5,206	1,076	7,417	134.4	926.9	134.4	926.9
Sun Capital Private Equity	.8	-	105	726	220	1,518	134.4	926.9	134.4	926.9
Nephila Cassiopeia Fund	6.3	-	9	810	126	11,245	1.4	127.9	1.4	127.9
TOTAL PORTFOLIO*	**639.4**		**26,325**	**183,704**	**25,804**	**141,855**	**41.2**	**287.3**	**42.3**	**232.6**

* Total Portfolio stress calculated as a percentage of total asset exposure (including synthetic equity gross exposure), excluding Cash, LDI and Buy-ins.
All “Current Total Portfolio” figures in this table are weighted averages with the exception of “Fund Value” and “Absolute Carbon Emissions (tCO2e)”.
“Absolute Carbon Emissions (tCO2e)” is calculated using the notional value of the fund. “Fund Value (£m)” shows the mark-to-market value of the fund.
“Previous” figures show climate metrics from 12 months prior to “Current” figures. Fund-level “Previous” figures may not sum to the “Previous Total Portfolio” figures because the “Total Portfolio” values may contain funds that have now been divested from and not reported in this table.
Carbon metrics are proxied where there is insufficient data for funds. In these instances, no figure is shown for MSCI Climate Metrics Coverage.
ESG and MSCI Carbon Metrics meet the current minimum UK DWP's TCFD-aligned “Metrics and Targets” regulations. However, regulations are subject to change. Redington monitors developments closely.

Coller International Partners V Fund, Fortress Private Equity, Greencoat Solar II, Sun Capital Private Equity and JPM PEG Venture Capital Fund values are reported at a quarter lag.
Magnetar PRA Fund has been excluded from this analysis due to data limitations.

Fund	Fund Value (£m)	Science Based Targets initiative Rating		PCAF Data Quality Score	
		Current	Previous	Current	Previous
Liquid and Semi-Liquid Credit					
Insight Active Corporate Bond Portfolio	224.3	23.4%	13.1%	2.18	-
Insight High Grade ABS Fund	222.7	-	-	-	-
Illiquid Credit					
Aviva Investors Lime Property Fund	7.0	-	-	-	-
TCW Securitized Opportunities	55.6	-	-	-	-
Aviva Investors REaLM Ground Rent Fund	21.2	-	-	-	-
Illiquid Markets					
Equitix Fund V	47.6	-	-	-	-
Fortress Private Equity	5.8	-	-	-	-
Greencoat Solar II LP	41.7	-	-	-	-
JPM PEG Venture Capital II	0.8	-	-	-	-
JPM PEG Venture Capital III	5.6	-	-	-	-
Sun Capital Private Equity	0.8	-	-	-	-
Nephila Cassiopeia Fund	6.3	-	-	-	-
TOTAL PORTFOLIO*	**639.4**	**8.2%**	**2.7%**	**2.18**	**-**

* Total Portfolio stress calculated as a percentage of total asset exposure (including synthetic equity gross exposure), excluding Cash, LDI and Buy-ins.
All "Current Total Portfolio" figures in this table are weighted averages with the exception of "Fund Value" and "ITR" (where it is presented).
"Previous" figures show climate metrics from 12 months prior to "Current" figures. Fund-level "Previous" figures may not sum to the "Previous Total Portfolio" figures because the "Total Portfolio" values may contain funds that have now been divested from and not reported in this table.
Where presented, "Science Based Target initiative (SBTi)" or "TPI" scores are all based on lookthrough data where it is available and never proxied. "ITR" is only proxied where there is insufficient data.
Where presented, the SBTi score reflects only the long positions within a portfolio.
ESG and MSCI Carbon Metrics meet the current minimum UK DWP's TCFD-aligned "Metrics and Targets" regulations. However, regulations are subject to change. Redington monitors developments closely.
The PCAF data quality score is a system used to assess the quality of data used to calculate greenhouse gas emissions from financial activities, with 1 being the highest quality data and 5 being the lowest quality data.

Coller International Partners V Fund, Fortress Private Equity, Greencoat Solar II, Sun Capital Private Equity and JPM PEG Venture Capital Fund values are reported at a quarter lag.
Magnetar PRA Fund has been excluded from this analysis due to data limitations.

Glossary of Terms (ESG and Carbon Metrics)

Enterprise Value Including Cash (EVIC): Defined as the sum of market capitalisation of shares and book values of total debts and minority interests at fiscal year-end. No deductions of cash or cash equivalents are made to avoid potential negative enterprise values. This is the recommended denominator metric for carbon attribution according to the GHG Protocol, the global standard for carbon accounting endorsed by the European Union and the DWP.

Estimated Total Mandate Carbon Emissions (tons): Represents the total share of Scope 1, Scope 2 and Scope 3 carbon emissions a fund is responsible for. Please note the metric is sensitive to the investment holding size in the fund.

MSCI Climate Metrics Coverage: The proportion by value of a fund for which carbon metrics are available from MSCI.

PRA Slow Transition Climate Scenario Analysis: Redington's extrapolation of a stress test constructed by the Prudential Regulation Authority ("PRA") to explore the % impact of future climate change on assets. A slow transition assumes a long-term, orderly transition that is broadly in line with the Paris Agreement out to 2050.

Scope 1 & 2 Carbon Footprint (tCO2e / EVIC £m): Measurement of the Scope 1 & 2 CO2e emissions of a fund per million pounds of EVIC. Scope 1 emissions refer to those which are directly connected to the production of a company's product or service e.g., burning of fossil fuels to power the electricity grid. Scope 2 emissions refer to those from electricity used to power company facilities. For a pension scheme, scope 1 emissions include the use of gas fuel and refrigerants in the office whilst scope 2 emissions include the use of electricity in the office buildings.

SBTi Score: The Science-Based Targets initiative ("SBTi") sets out a framework through which companies can set out their decarbonisation pathway and have them assessed against the goals set out in the Paris Agreement – limiting global warming to 1.5°C above pre-industrial levels or well-below 2°C. The SBTi Score is the proportion of assets invested that are classified as being Paris-aligned.

Tons of Carbon Dioxide Equivalents (tCO2e): Tons of greenhouse gases including methane, nitrous oxide, carbon dioxide, and fluorinated gases. Given the abundance and prominence of carbon as a greenhouse gas, all the other gasses are considered carbon equivalents.

Limitations of Carbon Metrics

TCFD based regulations require portfolios to report on their climate metrics without asset class adjustments. Therefore, metrics in funds with a lower coverage (below 80%), or in multi-asset funds and liquid / semi-liquid credit need to be evaluated with more context. This is because a low coverage means a larger part of emissions are unknown, and because the carbon risk of equity holdings will tend to be higher than that of credit holdings.

Specific line-by-line modelling of emissions is currently available only for publicly listed equity and credit assets. For unlisted asset classes, we have reported asset class-level estimations of carbon emissions. This provides a broad and longer-term understanding of what the portfolio's emissions are and where the biggest amount of emissions come from. We believe this is appropriate from a strategic asset allocation perspective, but will not capture specific actions managers are taking to reduce their CO2e footprint.

Due to lags in company carbon reporting and database updates, carbon footprint numbers have a one to two year lag. The carbon numbers included in this report are updated at the start of every year.

Appendix C: Climate Change Risk Management Policy

Vodafone Group Pension Trustee Limited (the "Trustee"), as the trustee of the Vodafone Group Pension Scheme ("VGPS", "the Scheme"), which consists of two sections (the "Sections"): the Vodafone Group Pension Scheme Section ("Vodafone Section") and the Cable and Wireless Worldwide Retirement Plan Section ("CWW Section"), recognises climate change as a key factor which can have a material impact on the financial performance of the Scheme's investments. Therefore, the Trustee has a fiduciary duty to consider climate change risk when making investment decisions, and the Trustee should assess the impact of climate change risks and opportunities, which may reduce investment risk and enhance long-term investment returns.

This Climate Change Risk Management Policy ("CCRMP") documents the Trustee's approach to identifying, assessing, and managing risks specifically related to climate change. The CCRMP details the roles and responsibilities of the Trustee Board and the Scheme's external advisors in assessing, managing, and monitoring climate-related risks and opportunities. The CCRMP is consistent with the Trustee's Statement of Investment Principles ("SIP") and Responsible Investment Policy.

Statement of Trustee's Climate-related Investment Principles

The following investment principles are pertinent to the Trustee's approach to climate change in the context of Responsible Investment ("RI"), which it believes are in the interest of members:

- Climate-related risks should be managed in line with the Scheme's overall risk management and included in its risk management framework.
- Climate-related risks could be material over the short (3 years), medium (5 years), and long-term (10 years) to the Scheme.
- Climate-related factors will likely create investment opportunities that the Trustee should consider taking advantage of as appropriate within its wider investment objectives.
- The Scheme should invest in a way that is measurably aligned with achieving the goals of the Paris Agreement (limiting global temperature rises to well below 2 degrees Celsius above pre-industrial levels by the end of the century) to the extent that is possible, and in the financial interests of members to do so.
- Engagement, collaboration and using voting rights as appropriate are one of a number of effective tools to manage climate-related risks.

The Trustee supports the Paris Agreement's long-term temperature goal of keeping the mean rise in temperature to well below 2°C above pre-industrial levels. The Trustee therefore takes efforts to ensure that climate-related risks and opportunities are integrated within the approach of investment managers to ESG and stewardship activities.

In the context of its fiduciary responsibility and the above ESG Beliefs, the Trustee has adopted the following policy:

- Climate change is recognised as a financial risk to the Scheme's funding position, and it is viewed as an external risk that affects investments. As such, the Trustee will appropriately factor in climate change risks and opportunities when making strategic asset allocation and manager selection decisions.

- The Trustee requires the appointed investment managers to understand and, as appropriate for the investment strategy they are employed to implement, be cognisant of climate change risks and opportunities within their investment processes as applied to the assets of the Scheme. The Trustee's approach to stewardship and engagement is set out in the Responsible Investment Policy.

- In line with the Trustee's commitment to integrating ESG issues into stewardship practices, the Trustee will act in accordance with the Responsible Investment Policy and, where relevant, expect its managers to engage on ESG matters when they are considered material and relevant to the investment.

- The Trustee supports the Task Force on Climate-related Financial Disclosures ("TCFD") and will incorporate its recommendations into the Scheme's annual reporting, subject to availability of data.

- The Trustee supports the further development of effective climate change risk metrics to enhance our ability to assess and minimise climate risks. We expect our investment managers to continue to improve the climate-related data they provide on the assets of the Scheme.

- The Trustee recognises that climate change will be subject to much further analysis and subsequent related policy changes in the coming years. The Trustee will evolve its policy to ensure relevant developments are captured.

- The Trustee is responsible for setting climate-related objectives and climate metrics in relation to the Scheme's assets. These metrics, and progress towards these objectives, will be explicitly monitored on a quarterly basis. Specifically, the Trustee has agreed to adopt and monitor the following 4 Metrics:

Metrics	Metric Focus	Metric Adopted
Metric 1	Absolute Emissions	Total Greenhouse Gas ("GHG") Emissions
Metric 2	Emissions Intensity	Carbon Footprint
Metric 3	Additional Climate Change	Data Quality
Metric 4	Portfolio Alignment	Proportion of portfolio with SBTi ("Science Based Targets Initiative") targets in place

- The Trustee has adopted a target against Metric 1 (Carbon Emissions), such that both Sections of the Scheme should target a 50% reduction in total scope 1 and scope 2 carbon emissions by 2030 alongside an overall target of achieving net zero carbon emissions (for Scopes 1 and 2, and separately for Scope 3) from its investments by 2050. This target has been set to help the Trustee take climate risk into account when reviewing the current and future investment allocations, and ensure that the Scheme's climate risk exposure is proportional to the amount of investment risk being taken.

- The Trustee carries out scenario analysis on the Scheme's funding and investment strategy using climate scenarios, one of which assumes an increase in the global average temperature between 1.5°C and 2°C and another where global average temperatures rise in excess of that.

- Training on climate-related risks and opportunities is part of the broader programme of ongoing Trustee knowledge and understanding activity, including induction activities for any new Trustees. This aims to enable the Trustee Board to have the relevant knowledge and understanding of climate-related issues.

- The Trustee has also considered which of the SDGs, if not achieved, would have the biggest financial impact on risks and returns as a way of focussing their RI strategy. These are expressed in three key themes, of which Climate Change is the first, alongside Human Rights and Corporate Governance.

  The roles of the relevant parties within the Scheme's governance structure for climate change are summarised below:

<u>Governance: Roles and Responsibilities</u>

Role of the Trustee Board

- **Sets the overall investment and funding strategy and objectives and governance framework, which includes the identification, assessment and management of climate-related risks and opportunities:** The Trustee is committed to integrating and managing the consideration of climate-related issues within the Scheme as the Trustee is ultimately responsible for overseeing climate-related risks and opportunities of the Scheme.

- **Sets climate-related objectives:** The Trustee is also responsible for setting the Scheme's climate-related objectives, including risk appetite, and approving metrics to measure progress towards these objectives.

- **Sets climate-related metrics and climate scenario analysis:** The Trustee is responsible for setting the relevant metrics and scenario analysis which allow the Trustee to consider climate-related risks and opportunities when setting the Scheme's funding and investment strategy.

- **Determines appropriate climate-related objectives in the investment consultant's annual objectives.** The Trustee is responsible for setting objectives for its investment consultants in accordance with the requirements of the Competition and Markets Authority ("CMA") which take climate-related considerations into account.

- **Selects and reviews the investment managers:** The Trustee is responsible for selecting suitable investment managers are to help achieve the Scheme's climate-related objectives. The Trustee's assessment framework for ensuring its investment managers align with their goals is set out in more detail in the Responsible Investment Policy.

- **Monitors and oversees its advisors and consultants:** Although the Trustee is ultimately responsible for making decisions on strategic matters including investment and funding strategy and investment manager selection, it relies on its advisors and consultants for advice on such matters.

Role of the Investment and Funding Committee ("IFC")

- **Reviews proposed climate-related objectives:** The IFC reviews the Scheme's proposed climate objectives before they are presented to the Trustee Board for approval to ensure they are robust and fit for the Scheme.

- **Informs, monitors, and reviews the investment managers:** The IFC informs and makes recommendations to the Trustee board, ensuring suitable investment managers are identified and recommended to the Trustee board for selection. The IFC also monitors the managers on an ongoing basis to ensure that they remain appropriately placed to help achieve the Scheme's climate-related objectives.

- **Refines materials and recommendations before they are presented to the Trustee Board:** The IFC is responsible for ensuring that the Board's climate objectives are implemented through the Scheme's investment policy. To achieve this remit, the IFC will review climate-related recommendations, including assessment of climate journey planning, opportunities, metrics, and progress towards targets. The IFC acts as a forum to debate on these issues before they are recommended to the Trustee Board.

- **Supports the Board in considering climate-related risks and opportunities when setting the Scheme's funding and investment strategy:** The IFC is responsible for reviewing the results of various climate scenarios that influence the Scheme's funding and investment strategy set by the Board. The impact of various climate scenarios on the liabilities and sponsor covenant strength are also considered with the help of the Scheme's advisors. The results of these climate scenarios are aligned where possible to ensure a consistent approach is taken across the Scheme's entire funding strategy.

Role of the Vodafone In-House Pension Team ("VPT")

- **Assists the Trustee Board and IFC in ensuring that appropriate time is allocated to assessing climate related risks and opportunities**, by maintaining the Scheme's regulatory framework and ensuring sufficient time is set aside at meetings to discuss identified areas.
- **Assists in the implementation of any climate-related enhancements** such as updating the IMA of the Scheme's mandates with investment managers.

Role of the external advisors

- **Advise on climate-related risks and opportunities:** The Trustee requires the Scheme's external advisors (namely the Investment Consultant, the Actuary and the Covenant Advisor) to advise on climate-related risks and opportunities, including, but not limited to, providing relevant training, information concerning market developments and integrating climate-related considerations in setting the Scheme's investment strategy.

- **Provision of climate scenario and climate risk metric analysis:** The external advisors are responsible for assisting the Trustee in carrying out climate scenario analysis on the Scheme's funding and investment strategy. The Trustee also requires the external advisors to recommend and regularly calculate relevant climate metrics that meet the regulatory requirements for the Trustee to monitor.

- **Climate-related considerations are included in the advisors' annual objectives:** This ensures the Scheme's advisors are taking adequate steps to identify and assess climate-related risks and opportunities. The Trustee annually assesses the delivery of this advice against the Investment Consultant Objectives.

    - The DB asset analyses are performed by the Scheme's Investment Advisor.

    - The liability analysis is performed by the Scheme Actuary.

    - The covenant analysis by the Scheme's Covenant advisor.

    - The Trustee reviews the Scheme's investment managers to ensure ESG and climate-related risks are appropriately integrated into portfolio management; specifically carried out by the Scheme's Investment Advisor.

Trustee Knowledge and Understanding

- Training on climate-related risks and opportunities is part of the broader programme of ongoing Trustee knowledge and understanding activity, including induction activities for any new Trustees. This aims to enable the Trustee Board to have the relevant knowledge and understanding of climate-related issues.

- The Trustee works with the Scheme's external advisors to ensure the Trustee has the appropriate training and that policy and documentation reviews are conducted in line with the regulatory requirements to identify, assess and manage climate-related risks.