



TASKFORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) STATEMENT

YEAR ENDED 31 MARCH 2023

Vodafone Group Pension Scheme

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 their 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 1 March 2022 to 31st March 2023. 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 an assessment of the covenant. Taking a proportionate approach and recognising that such analysis is required to be produced every three-years, the analysis has been carried out on an assets-only basis as at this year-end, 31 March 2023. The analysis as at both dates has been included in this report.

The analysis found that the Vodafone Section funding level is projected to fall under each of the three climate transition scenarios: “Fast Transition”, “Slow Transition” and “No Transition”. 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 set 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 their approach to ESG integration and climate-related risks. The Trustee also engages with its investment consultant to understand and challenge their 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 results of the ‘Slow Transition’ Prudential Regulation Authority (“PRA”) stress test (“additional climate change metric”)
- 4) SBTi portfolio alignment metric.

These metrics are reported on as at the Scheme’s year-end (31st March 2023) within this report.

Going forward, the Trustee will use 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.

The Trustee has also adopted a target against Metric 3 (Slow Transition Scenario Stress Test), such that the Slow Transition risk budget should remain below 50% of each Section’s Funding-Ratio-at-Risk in a 1-in-20 downside scenario. This target has been set to help the Trustee take climate risk into account when reviewing the current and future investment allocations ensure that the Scheme’s climate risk exposure is proportional to the amount of investment risk being taken.

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 their investment advisor and formalised it in March 2023.

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 their 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, has challenged their 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, noting a marked improvement in 2022 for this performance metric vs the previous year's scoring.

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

Prior to the beginning of the year, the Trustee, with assistance from Redington, carried out a "gap analysis" of the Scheme's existing processes in relation to climate related risks and opportunities, and the regulatory requirements which applied. This session helped provide the Trustee with an indicative roadmap to ensure each of the requirements were addressed over the year. The subsequent training carried out is set out below:

- **21st April 2022** – Introduction to setting climate related risk metrics with Redington
- **30th June 2022** – Training on setting a net-zero target, setting appropriate time horizons, and interpretation of results of climate related risk metrics with Redington.
- **30th June 2022** – Presentation from Penfida on covenant, covering risk exposures of the sponsoring employer
- **12th October 2022** – Further training on Metrics 3 & 4 with Redington
- **14th December 2022** – Assessment of the impact of the results of Metrics 3 & 4 with Redington
- **14th December 2022** – Initial training on stewardship, how it fits in with the Scheme's sustainable investment objectives, and how the Trustee can utilise its primary tool of engagement to preserve and enhance the value of assets
- **23rd March 2023** – Introduction of the Climate Change Risk Management Policy and discussion with Redington



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 be fully funded on the Self-sufficiency basis by 31 December 2030 on the Vodafone Section and by 31 December 2025 on the CWW Section. A central part of the strategy to achieve this objective 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 their 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 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. The Trustee reviews its investment managers' policies in these areas to satisfy itself that they broadly meet with the Trustee's views. 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 (including ESG ratings), to effectively assess climate-related risks and opportunities.

In addition, the Trustee considers climate-related risks and opportunities and their 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.

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 on 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 their 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.



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"). The stresses 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 a clear overview of how resilient the investment strategy is with regards to various climate change outcomes. 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

The results of the scenarios provide the Trustee with a clear overview of how resilient the current investment strategy is with regards to various different climate change outcomes. The Trustee is aware this does not allow for changes within the strategy that are expected over that time.

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, which 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.

On an annual basis, the Trustee monitor the output of the “Slow Transition” scenario on an asset-only basis as their “Additional metric” to ensure consistency with the goals of the Paris Agreement. Further detail of this is set out in the “Metrics and Targets” section of this document.

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 shortening the time to buy out ahead of the current target of 2035, 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 their investment advisor in order to effectively assess climate-related risks and opportunities.

The Trustee has formalised a Responsible Investment policy to define their voting and engagement policy, including its delegation and approach to collaborative engagement, and their 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 believe 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 their 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 their RI strategy. These priority themes are outlined in the Trustee’s Responsible Investment Policy.

In line with the above, following the Trustee has commenced a project to assess the stewardship activities of its investment managers. Following the end of the financial year, the Trustee has received extended training on stewardship and has put in place a plan over the remainder of the year to evaluate the stewardship activities of its investment managers.

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	Scenario analysis outlining the impact on the Fund’s assets under the scenario that a slow transition to a Paris Aligned economy takes place ³	This metric is the output of the asset-side scenario analysis and is key to assessing the level of downside risk exposure of the Fund’s assets and any hedging provided by assets that may benefit from climate-related opportunities.
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.

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 A slow transition scenario occurring by 2050, aligned with the goals of the Paris Agreement (temperature increase kept well below 2 degrees Celsius relative to pre-industrial levels). The PRA stress tests help to assess the impact of climate-related risks on the value of the assets held within the Fund under fast, slow and no transition scenarios. The results of the scenarios provide the Trustee with an estimate of how resilient the investment strategy is with regards to various different climate change outcomes.

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.



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 will annually review its selection of metrics to ensure they remain appropriate for the Scheme.

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 Fund. The Trustee monitors the Scope 1, 2 & 3 emissions of the investments held by the Fund and does not report on its own Scope 1 & 2 emissions.

The Trustee notes that the reporting requirements in the first year only apply to Scope 1 and Scope 2 emissions, with Scope 3 required in the second regulated year. The Trustee notes that Scope 3 emission data is complex and that reporting in this area is still evolving. Nevertheless, the Trustee has opted to voluntarily report on Scope 3 emissions in this report to provide context to reporting in future years, while setting emissions-based objectives against Scope 1 & 2 requirements only, until they are satisfied that Scope 3 emissions reporting has improved. Note that LDI and cash assets are excluded from the analysis due to carbon accounting methodologies not being sufficiently developed in these areas.

There is inherent double-counting of emissions in the current greenhouse gases protocol and no clear guidance on how to combine Scope 1 & 2 and Scope 3 emissions to allow for this double-counting. Therefore, the Trustee has reported Scope 1 & 2 and Scope 3 emissions separately, consistent with their approach to setting objectives against Scope 1 & 2 emissions only.

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

For the non-emissions-based metric, the Trustee has opted to utilise the PRA Slow Transition stress test. The Trustee recognises that the third optional metric chosen may differ across pension schemes, with a majority of other large UK DB pension schemes adopting the Data Quality Coverage (% coverage of company reported emissions). The Trustee selected this metric as it provides a good assessment of climate risk at a strategic level, which the Trustee finds helpful to monitor.

This scenario is also aligned with the objectives of the 2015 Paris agreement to achieve net zero global emissions by 2050 and to minimise global temperature increases to less than 2 degree Celsius above pre-industrial levels by 2100, and less than 1.5 degrees Celsius by 2050. As a metric for monitoring, it can act as a useful guide to assessing the portfolios robustness towards a mixture of both physical and transition risks. This scenario therefore provides a useful tool to allow the Trustee to examine the impact that current and future asset allocation decisions may have upon the Scheme's climate risk profile.

4. Portfolio Alignment

The Trustee has agreed to adopt 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 their 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 as the starting position as at 31 March 2022), alongside an overall target of achieving net zero carbon emissions (scopes 1, 2 and 3) from its investments by 2050. The 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 Sponsors' 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.

In addition, the Trustee has adopted a target against Metric 3 (Slow Transition Scenario Stress Test), such that the Slow Transition risk budget should remain below 50% of the Scheme's Funding-Ratio-at-Risk budget in a 1-in-20 downside scenario (i.e. 1-year FRaR95). 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.



For the purposes of monitoring this target, the Trustee considers the impact of the Slow Transition stress on the proportion of Total assets, to align with the Funding-Ratio-at-Risk budget which is also set at Total asset level

Metrics

The results of the analysis as at 31 March 2023 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*	Absolute Carbon Emissions (tCO2e)		Carbon Footprint (tCO2e/EVIC £m)		"Slow Transition" Climate PRA Stress Impact	Science Based Targets Initiative Rating
	Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3		
31/03/2022	137,306	700,324	47.1	240.5	-5.0%	N/A
31/03/2023	62,237	388,693	52.4	327.1	-4.3%	4.7%

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



CWW Section:

Total*	Absolute Carbon Emissions (tCO2e)		Carbon Footprint (tCO2e/EVIC £m)		“Slow Transition” Climate PRA Stress Impact	Science Based Targets Initiative Rating
	Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3		
31/03/2022	87,335	439,335	46.0	231.4	-2.9%	N/A
31/03/2023	25,804	141,855	42.3	232.6	-2.5%	2.7%

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

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 ‘Slow Transition’ PRA stress test monitors the Fund’s exposure to climate risk which is broadly aligned with the Paris Agreement. This provides an indication of the direction and magnitude of climate risk the Fund is exposed to. The figure reported relates only to the asset stresses, excluding the impact of mortality stresses described in Section 2: Strategy. We consider that it remains appropriate that the climate risk is calculated on an asset-only basis for this metric, reflecting that the metric is intended to provide context to the Fund’s investment strategy.

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.

The Trustee observes that Absolute Carbon Emissions have fallen materially over the year. Rather than as a result of any direct reductions in emissions of the Fund’s holdings, this has been driven primarily by the fall in the Fund’s overall holdings in return seeking assets over the year, driven by two key factors:

- 1) Rising interest rates reduced the size of the Fund’s liabilities and matching assets, requiring rebalancing from return-seeking assets to retain the appropriate split.



- 2) Following the LDI crisis in 2022, pension schemes are required to hold significantly more LDI capital to support hedging portfolios. This required further rebalancing from return-seeking assets into LDI assets in addition to the above.

The Trustee recognises therefore, that the remaining carbon metrics provide a more valuable insight into how the carbon impact of the Fund's investments has changed over the year.

The Trustee notes that the position of carbon footprint remained broadly the same over the year, with a slight deterioration of Scope 1 & 2 carbon footprint for the Vodafone Section and slight improvements in carbon footprint for the CWW Section. This reflects that no material changes to the composition of the investment strategy was implemented over the year (

The slow transition stress impact has also reduced for both Sections,

The SBTi rating was not calculated as at 31 March 2022 and therefore this is the first year at which this score has been observed.

The Trustee will continue to consider the results in identifying climate-related risks and opportunities which are relevant to the Fund. 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 2023.

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 2023	Is the Section on track to achieve it's 50% reduction by 2030 target?
Vodafone Section	137,306	68,3653	62,237	Yes
CWW Section	87,335	43,668	25,804	Yes



Climate Risk Target	1-year FRaR95	50% of FRaR95 budget Target	Slow Transition Scenario Stress Test*	Slow Transition Stress Test lower than Target
Vodafone Section	7.9%	4%	2.6%	Yes
CWW Section	4.9%	3%	1.2%	Yes

**Climate risk as a proportion of Total assets*

The Scheme is therefore on track against its targets as at 31 March 2023.

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 have 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 2023 can be found on the following pages. This reporting includes the chosen first, second and fourth metrics as described under “4. Metrics and Targets”. The third metric (the result of the “Slow Transition PRA stress test”, is outlined in Appendix A).

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

Vodafone Section: Fund	Fund Value (£m)	MSCI Climate Metrics Coverage %	Absolute Carbon Emissions (tCO2e)				Carbon Footprint (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	-14.3	-	32,724	223,438	43,448	246,635	59.9	409.3	54.9	311.9
LGIM All World Equity Index Fund (75% GBP Hedged)	13.1	90.6%	775	5,637	13,796	78,311	59.2	430.5	54.9	311.9
Liquid and Semi-Liquid Credit										
Bain Capital I ICAV - Global Loan Fund	49.1	-	7,186	26,289	15,583	54,484	146.2	535.0	169.2	591.6
Insight Active Corporate Bond Portfolio	227.3	78.5%	7,628	59,480	22,378	113,661	33.6	261.7	98.3	499.1
Illiquid Credit										
Aviva Investors Lime Property Fund	53.3	-	364	2,675	829	2,847	6.8	50.2	13.1	44.9
TCW Securitized Opportunities	82.1	-	7,407	40,005	14,414	76,206	90.2	487.0	116.9	618.3
Illiquid Markets										
Equitix Fund V	57.1	-	5,919	15,355	5,220	11,445	103.7	269.0	103.6	227.1
Greencoat Solar II LP	57.0	-	86	2,613	50	3,515	1.5	45.9	0.9	62.1
Nephila Iron Catastrophe Fund	103.2	-	148	13,201	139	12,984	1.4	127.9	1.4	133.6
TOTAL PORTFOLIO	628.0		62,237	388,693	137,306	700,324	52.4	327.1	47.1	240.5



Fund	Fund Value (£m)	Science Based Targets initiative Rating		PRA Slow Climate Stress	
		Current	Previous	Current	Previous
Liquid Markets (Equities)					
Insight Synthetic Equity Portfolio	-14.3	-	-	-6.9%	-
LGIM All World Equity Index Fund (75% GBP Hedged)	13.1	34.8%	-	-6.9%	-
Liquid and Semi-Liquid Credit					
Bain Capital I ICAV - Global Loan Fund	49.1	0.2%	-	-4.4%	-
Insight Active Corporate Bond Portfolio	227.3	22.3%	-	-2.0%	-
Illiquid Credit					
Aviva Investors Lime Property Fund	53.3	-	-	-8.0%	-
TCW Securitized Opportunities	82.1	-	-	-2.0%	-
Illiquid Markets					
Equitix Fund V	57.1	-	-	-10.9%	-
Greencoat Solar II LP	57.0	-	-	14.0%	-
Nephila Iron Catastrophe Fund	103.2	-	-	-2.0%	-
TOTAL PORTFOLIO*	628.0	4.7%	-	-4.3%	-5.0%**

* Total Portfolio stress calculated as a percentage of total asset exposure (including synthetic equity gross exposure), excluding Cash, LDI and Buy-ins.

** 31 March 2022 Slow Climate Stress provided at Total portfolio level only



CWW Section:

Fund	Fund Value (£m)	MSCI Climate Metrics Coverage %	Absolute Carbon Emissions (tCO2e)				Carbon Footprint (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										
GS Global Sovereign Bond Portfolio	1.5	-	0.0	0.0	0.0	0.0	0.0	0.0	0	0
Insight Active Corporate Bond Portfolio	126.2	57.1%	3,398	19,432	33,272	168,997	26.9	154.0	98.3	499.1
Insight High Grade ABS Fund	119.0	-	4,738	31,593	16,588	103,049	39.8	265.6	55.7	346.0
Bain Capital I ICAV - Global Loan Fund	30.7	-	4,486	16,413	12,162	42,523	146.2	535.0	169.2	591.7
Illiquid Credit										
TCW Securitized Opportunities	60.6	-	5,466	29,525	12,999	68,725	90.2	487.0	116.9	618.3
Aviva Investors Lime Property Fund	49.4	-	337	2,478	756	2,598	6.8	50.2	13.1	44.9
Aviva Investors REaLM Ground Rent Fund	26.1	-	178	1,311	373	654	6.8	50.2	13.1	44.9
Illiquid Markets										
Coller International Partners V	0.1	-	16	109	141	801	134.4	926.9	155.0	880.3
Equitix Fund V	46.1	-	4,777	12,392	4,212	9,236	103.7	269.0	103.6	227.1
Fortress Private Equity	6.0	-	796	5,488	912	5,177	134.4	926.9	155.0	880.3
Greencoat Solar II LP	46.0	-	70	2,108	40	2,837	1.5	45.9	0.9	62.1
JPM PEG Venture Capital II	0.9	-	120	826	167	951	134.4	926.9	155.0	880.3
JPM PEG Venture Capital III	8.0	-	1,076	7,417	1,771	10,055	134.4	926.9	155.0	880.3
Nephila Iron Catastrophe Fund	87.9	-	126	11,245	119	11,060	1.4	127.9	1.4	133.6
Sun Capital Private Equity	1.6	-	220	1,518	614	3,487	134.4	926.9	155.0	880.3
TOTAL PORTFOLIO	610.1		25,804	141,855	87,335	439,335	42.3	232.6	46.0	231.4



Fund	Fund Value (£m)	Science Based Targets initiative Rating		PRA Slow Climate Stress	
		Current	Previous	Current	Previous
Liquid and Semi-Liquid Credit					
GS Global Sovereign Bond Portfolio	1.5	-	-	-3.3%	-
Insight Active Corporate Bond Portfolio	126.2	13.1%	-	-2.5%	-
Insight High Grade ABS Fund	119.0	-	-	-0.6%	-
Bain Capital I ICAV - Global Loan Fund	30.7	0.2%	-	-4.4%	-
Illiquid Credit					
TCW Securitized Opportunities	60.6	-	-	-2.0%	-
Aviva Investors Lime Property Fund	49.4	-	-	-8.0%	-
Aviva Investors REaLM Ground Rent Fund	26.1	-	-	-8.0%	-
Illiquid Markets					
Coller International Partners V	0.1	-	-	-14.6%	-
Equitix Fund V	46.1	-	-	-10.9%	-
Fortress Private Equity	6.0	-	-	-14.6%	-
Greencoat Solar II LP	46.0	-	-	14.0%	-
JPM PEG Venture Capital II	0.9	-	-	-14.6%	-
JPM PEG Venture Capital III	8.0	-	-	-14.6%	-
Nephila Iron Catastrophe Fund	87.9	-	-	-2.0%	-
Sun Capital Private Equity	1.6	-	-	-14.6%	-
TOTAL PORTFOLIO*	610.1	2.7%	-	-2.5%	-2.9%**

* Total Portfolio stress calculated as a percentage of assets excluding Cash, LDI and Buy-ins

** 31 March 2022 Slow Climate Stress provided at Total portfolio level only



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”, “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 Fund 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	Slow Transition Scenario Stress Test
Metric 4	Portfolio Alignment	Science Based Targets Initiative (“SBTi”)

- 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 (scopes 1, 2 and 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. For Metric 3, the Trustee has adopted a target of the Climate Value-at-Risk arising from the slow transition scenario remaining below 50% of each Section’s respective Funding-Ratio-at-Risk budget.



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

Governance: Roles and Responsibilities

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.