

Carbon Reduction Plan

Vodafone UK

Version 5,
Issued 16th July 2025



→ Introduction

Reducing our environmental impact

At Vodafone UK, we are committed to fighting climate change and recognise the urgency of addressing this global challenge. Through our merger with Three, we remain dedicated to achieving our climate goals and leveraging technology to create solutions for a more sustainable future. This report outlines Vodafone UK's Carbon Reduction Plan for the financial year ending 31st March 2025. For more information, please find our Vodafone Group ESG report [here](#).

The information and communication technology (ICT) sector is estimated to account for between **1.8%** and **2.8%** of global greenhouse gas emissions¹. We recognise the growing challenge of reducing these emissions, especially as emerging technologies like generative AI become more prevalent. While such innovations offer powerful tools to tackle the climate crisis, they also demand significant infrastructure and energy, introducing new complexities to achieving sustainability goals. Despite these challenges, our commitment to climate action remains unwavering. We will continue to harness technology to empower others and drive progress toward a more sustainable future.

Vodafone UK consumes over **660 GWh** of energy annually, with the majority used across our network base station sites, offices and technology centres. As part of our net zero strategy, we are focused on enhancing the energy efficiency of our network, investing in innovative technologies, using renewable energy, and working closely with our suppliers to reduce emissions across the value chain.

Vodafone UK's emissions reduction targets

Vodafone has set ambitious goals to reduce our greenhouse gas emissions. Our long-term, SBTi-validated science-based target is to achieve net zero

emissions across our entire value chain globally by 2040. This involves an absolute reduction of our Scope 1, 2, and 3 emissions by at least **90% by 2040**. Additionally, we aim to **halve** our value chain (Scope 3) emissions by **2030**.

Vodafone UK is striving to achieve net zero for our operational emissions (Scope 1 and 2) by **2027**, expediting our global targets. VodafoneThree remains committed to this target.

Scope 1, 2 and 3 emissions

Greenhouse gases (or 'GHGs'), such as carbon dioxide (CO₂) and methane (CH₄), cause climate change by trapping heat within the earth's atmosphere. The more GHG emissions that are released, the faster the planet warms up. There are three classifications used to measure GHG emissions:

- **Scope 1** emissions are directly released into the atmosphere when a company burns fossil fuels (such as petrol, diesel or natural gas) in equipment it operates or industrial processes, or releases gases containing GHGs (such as fluorinated gases or 'F-gases'), which can leak from chemicals used in cooling equipment or fire suppressant systems.
- **Scope 2** emissions are those released into the atmosphere to generate the energy purchased and used by a company in its operations (e.g. the emissions released by a power plant to generate electricity). Scope 2 emissions can be calculated based on the location where the energy is used (called 'location-based') or on contractual agreements (such as renewable energy certificates) that specify the source used to generate the energy (called 'market-based'). As part of our principles, we only purchase clean and green renewable energy guarantees of origin (REGO) certificates i.e. from wind and solar.
- Collectively, Scope 1 & 2 emissions are known as **operational emissions**.



- **Scope 3** emissions are released into the atmosphere as an indirect result of the company’s activities or business model. They originate from the production of goods and services that the company buys (upstream emissions), the use of its products or services by its customers (downstream emissions) or the activities that it finances through its investments.
- Collectively, Scope 1, 2 and 3 emissions are known as **full value chain emissions**.

Our baseline emissions

Baseline emissions are the reference point against which emission reductions can be measured.

Vodafone UK’s baseline year for reporting carbon emissions data is FY20, which is the financial year ending 31st March 2020 and total operational emissions in this year were **93,514** tonnes of CO₂e.

Emissions	Total (tonnes CO ₂ e)
Scope 1	9,806
Scope 2	83,708
Scope 3	N/A ²
Total Emissions	93,514 (Scope 1 and 2 only)

Emissions	Total (tonnes CO ₂ e)
Scope 1	5,665
Scope 2	0
Scope 3 (Included Sources)	9,960 This figure is the sum of the following Scope 3 emission sources, as selected for reporting by UK Government: <ul style="list-style-type: none">• Transportation and distribution of products from Tier 1 suppliers to Vodafone• Waste generated in our operations.• Business travel• Employee commuting• Transportation and distribution of products sold by Vodafone to our customers
Scope 3	480,557
Total Emissions	5,665 (Scope 1 & 2 emissions only) 15,625 (Scope 1, 2 & 3 emissions from the included sources) 486,222 (Scope 1, 2 & 3 emissions from all sources)

→ The Detail

Current emissions

Our current emissions relate to the most recent carbon emissions data against which our progress can be measured. Vodafone UK’s total emissions in the financial year ending 31st March 2025 were **486,222** tonnes CO₂e.



Carbon emission reductions

Vodafone UK has made considerable progress against our net zero goals in the last three years. In the financial year ending 31st March 2025, we reduced our operational emissions (Scope 1 & 2) by **94%** compared to our baseline year. This equates to a reduction of **87,849 tonnes CO₂e**.

The main ways we've achieved this are prioritising energy efficiency and reduction initiatives, investing in onsite renewables, the transition to electric vehicles and the reduction of fluorinated gases across our whole portfolio. Vodafone UK is powered by **100%** renewable electricity through a mix of Power Purchase Agreements (PPAs) and renewable energy guarantees of origin (REGOs).

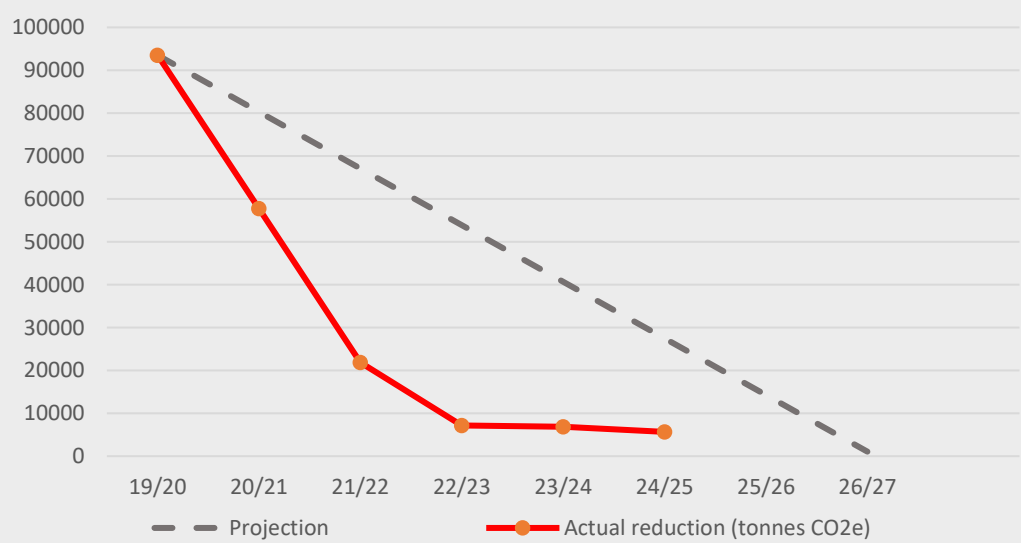
Our total Scope 3 emissions for the UK have increased by **9%** from FY24 to FY25. One of the key drivers of year-to-year trends in our Scope 3 emissions is improvements in the quality of data inputs, emission factors and/or calculation methods. We continue to invest in improving the quality, accessibility and availability of carbon footprint data to enable better measurement and reduction of Scope 3 emissions across our industry. You can see the full list of methodology changes per category in the Vodafone Group 2025 ESG methodology [here](#).

Carbon emissions forecasts

We anticipate that Vodafone UK's operational carbon emissions will drop by **95%**, resulting in less than **4,623 tonnes of CO₂e** by 2027. The final reductions are the most challenging, however, we have made significant progress so far.

These remaining improvements often rely on advancements in technology. While we await these developments, we will continue to innovate and promote technological advancements within our operations.

Additionally, we will offset any emissions that cannot be reduced through purchasing credible, high-quality, certified carbon offsets. In accordance with SBTi recommendations, we will limit the use of carbon offsetting to 10% until 2030 and to 5% thereafter.



→ Completed projects

Driving energy efficiency

Our priority is a continued programme of energy reduction and efficiency projects across our mobile, fixed, office, retail and technology locations.

Key actions undertaken to improve energy efficiency included the deployment of the latest generation radio hardware, the activation of smart power-saving features, the use of artificial intelligence in energy management, the introduction of flexible storage, and incentives to move towards smart metering in our operating companies.

We are retiring more energy-hungry legacy systems and rationalising our property portfolio. This has reduced our energy usage by **171** million kilowatt-hours (kWh) in the FY18-FY24 period.

In the last financial year, we have successfully deployed several energy efficiency upgrades across our network:

- **Lighting Upgrades:** We upgraded the lighting to LED in three additional mobile telephone exchange (MTX) locations. These upgrades included full passive infrared sensors that detect presence or absence in an area, allowing the lighting to switch on or off automatically, thereby saving energy.
- **Building Management System Enhancements:** We upgraded the control systems in four network locations, enabling better monitoring and control of energy consumption. These enhancements integrate with other systems to ensure optimal building performance.
- **Enhanced Sub-Metering:** We improved our sub-metering capabilities, providing a more granular breakdown of energy consumption across electricity, gas, water, heating, and cooling. This detailed information helps us understand usage patterns and the health of our systems.
- **Variable Speed Drives:** We installed variable speed drives on our heating, ventilation, and air conditioning (HVAC) equipment. These drives control motor speed, optimising energy efficiency and system performance by matching airflow and temperature to actual needs.

Our technical sites and offices have an ISO 50001 certified Energy Management System. We also have an ISO 14001 certified Environmental Management Standard, encompassing all Vodafone UK sites, contracts and operations. This assures strong environmental performance at our sites and radio base station estates.

This year, we conducted a network energy efficiency trial with Ericsson in London with three key use cases: 5G Deep Sleep, 4G Cell Sleep Mode Orchestration, and a Radio Power Efficiency Heatmap. These features work in tandem to measure, predict and optimise energy consumption across the network, with the ability to power down components during low traffic periods and rapidly reactivate them when needed. This trial reduced daily power consumption of 5G Radio Units by up to **33%** at select sites across London:

- **5G Deep Sleep:** AI-powered predictive algorithms enable radios to enter an ultra-low energy hibernation state, saving up to 70% energy consumption during low traffic hours.
- **4G Cell Sleep Mode Orchestration:** Creates a behavioural model of network cells to optimise sleep parameters, automatically balancing energy savings and performance.
- **Radio Power Efficiency Map:** Creates a visual map of all network cells, using machine learning to identify and rank underperforming sites for targeted improvements.



Growing UK-based renewables

Vodafone UK has been powered by **100%** renewable electricity since July 2021. We're now focused on accelerating the development of new UK-based renewable energy sources. To support this, Vodafone UK has secured long-term Power Purchase Agreements (PPAs) that guarantee a reliable and high-quality supply of renewable electricity from within the UK. By the end of FY25, approximately 20% of our renewable energy was sourced directly through these PPAs, with the remainder covered by renewable energy certificates.

As part of our broader sustainability efforts, we've also gained valuable learnings through our rooftop solar installations. In response to updated fire safety guidance, we proactively took the installed systems offline to implement a series of safety enhancements. These systems are scheduled to return online in the first half of this financial year, with plans to expand to seven operational sites by FY26.

VodafoneThree continues to evaluate and expand its renewable energy portfolio, with the latest PPA-backed asset going live in May 2025 further strengthening our long-term commitment to UK-based renewable energy.

This year, Vodafone UK joined an industry coalition to explore 24/7 carbon-free energy grids. As a founding partner of The Climate Group's 24/7 Carbon-Free Coalition the coalition aims to support early-stage industry discussions on the methodologies and technologies needed to help corporates take their first steps towards 24/7 reporting.

There are existing gaps in technologies that can deliver sustainable and reliable products. One of these gaps is in backup power generation. Given the importance of our services to critical national infrastructure, it is essential to ensure new technologies function correctly and reduce emissions.

We intend to move forward by starting to deploy hydrotreated vegetable oil (HVO) biofuel to power parts of our network in the UK. Biofuels provide a renewable fuel option that can help reduce diesel consumption and associated emissions during the transition away from diesel.

Electrification of our car and van fleet

We have increased the proportion of electric vehicles (EVs) in our company fleet to **60%**, reflecting our continued commitment to low-carbon transport.

Our policy of offering EVs as the sole option for company cars remains in place, with a current adoption rate of **91%** for pure battery electric vehicles.

To support this transition, we've made further investments in EV charging infrastructure across the Vodafone estate. In addition to company cars, we also offer a fully electric salary sacrifice scheme, broadening access to sustainable transport options for our employees.

Fluorinated gases

We use fluorinated gases (F-gases) in our cooling and fire suppression systems due to their high efficiency, reliability, and critical role in ensuring the safe and energy-efficient operation of our equipment. However, fugitive emissions, those released accidentally or through leakage, contribute directly to greenhouse gas emissions.

To address this, we've strengthened our preventative measures to reduce accidental F-gas releases and are actively increasing the use of alternatives with lower Global Warming Potential (GWP) wherever feasible.

Over the past year, we replaced and upgraded FM200-based fire suppression systems at six additional sites with IG55 which has a zero GWP. This initiative safely removed 20,000kg of gas from our estate, equivalent to 66,512 tonnes of CO₂, without compromising network performance, health and safety, or causing accidental discharge during this high-risk operation.

As a result, we have now eliminated **59%** of FM200-related emissions across our Mobile Telephone Exchange networks, with **22%** of that reduction achieved in the last financial year.



Reducing Scope 3 emissions

Our Scope 3 GHG emissions originate from the production of goods and services that we buy, the use of our products or services by our customers and the activities that we finance through our investments. Although these activities are not within Vodafone's direct operational control, we recognise that they are essential to our business model and that we can play a role (as a customer, supplier and/or investor) to influence our value chain partners to reduce their GHG emissions.

Scope 3 emissions account for **98.8%** of our total emissions footprint and are therefore a central focus of our carbon reduction strategy. Unlike Scope 1 and 2 emissions, addressing these emissions relies heavily on collaboration across our value chain including improved data visibility and deeper engagement with suppliers, partners, and customers.

We are working to better understand our complex supply chain and identify tangible levers across procurement, product design, and policy, which can drive meaningful reductions. Some actions we have undertaken include:

- Vodafone requires key suppliers to set science-based carbon targets aligned with the 1.5°C pathway and to disclose their environmental performance through CDP.
- In March 2023, we launched an environmentally linked supply chain financing programme to support smaller suppliers in progressing toward net zero.
- To embed sustainability into procurement, we introduced a 10% weighting for environmental and social criteria in our supplier RFQ evaluations. Key considerations include robust environmental policies, carbon reduction initiatives, and the use of renewable energy.
- With over 70% of emissions in the industry stemming from procured goods and services, We have also signed a joint letter through the Digital Connectivity Forum along with ten UK telcos, urging our shared suppliers to disclose emissions data and set clear goals to improve energy efficiency. VodafoneThree are now co-chairs of this working group.

- Downstream, we are promoting circularity through initiatives such as expanding the sale of refurbished phones and encouraging trade-in and donation schemes.
- This year, we announced that we have achieved our 2025 target to reuse, resell or send for recycling 100% of our decommissioned network equipment. To date, we focused our efforts on ensuring that non-hazardous e-waste is reused, resold or sent for recycling by third-party waste management partners. Even where our network equipment e-waste is sent to our third-party waste management partners for recycling, we acknowledge that not all materials are recovered during the recycling process.
- We are also enhancing customer insight into product-related emissions. In partnership with the Carbon Trust, we launched a mobile carbon calculator to help business customers understand the emissions associated with their mobile plans. This tool empowers customers to make informed decisions and reduce their carbon footprint.



Carbon abatement

Carbon abatement, also known as 'enablement' or avoided emissions, is an estimated measurement of carbon savings resulting from the use of products and services. It is specifically the measurement of the avoidance or reduction of greenhouse gas emissions that would otherwise have occurred had these connections and services (use cases) not been in place.

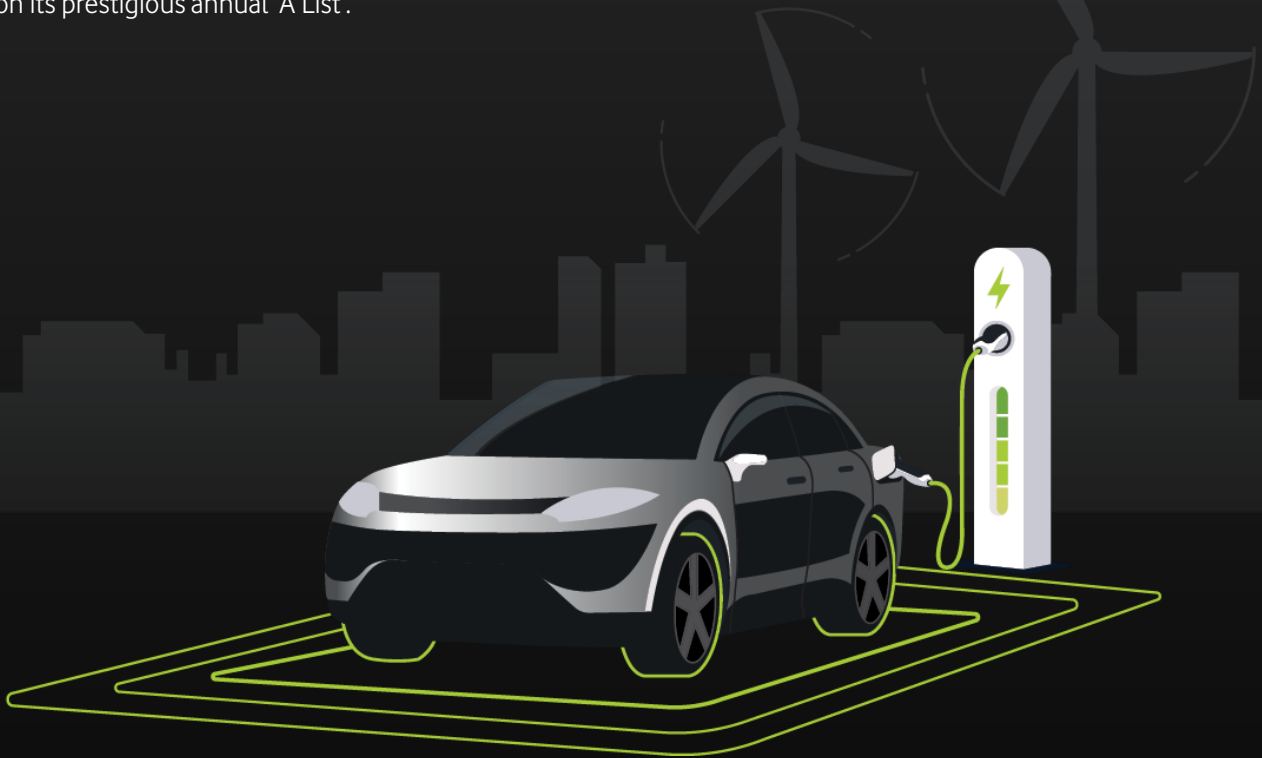
Vodafone estimates the potential global carbon abatement impact of their products and services with the support of The Carbon Trust, an external consultant and carbon-accounting specialist. An estimate of the carbon abatement impact for each use case is calculated by multiplying product volume (e.g., number of IoT connections) by a carbon abatement factor.

A use case is a proposition within Vodafone's business customer portfolio that has the potential to avoid or reduce carbon emissions (e.g., Smart Metering, Fleet Management, Healthcare monitoring). Vodafone worked with The Carbon Trust to define and identify these use cases, develop methodologies and estimate the associated carbon abatement impact by applying a carbon abatement factor to each use case.

The carbon saving for the year end FY25 for Vodafone UK was **2,550,813** tonnes CO₂e.

Reporting

We report to various disclosure schemes at Vodafone Group level, including responding to the CDP's climate change questionnaire since 2010. In February 2025, Vodafone was recognised for its leadership on corporate transparency and performance on tackling climate change by global environmental non-profit CDP, securing a place on its prestigious annual 'A List'.

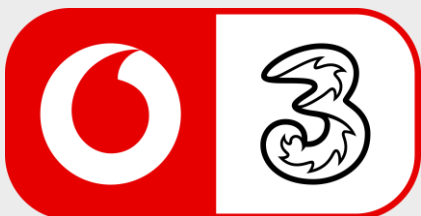


→ Continuing progress towards net zero

Vodafone UK and Three UK merger

Following the recent merger between Vodafone and Three, supported by a significant £11 billion investment, we are developing one of Europe's most advanced 5G Standalone (5G SA) networks. This new network aims to cover **90%** of the UK population within three years (2028), and **99.95%** of the population by 2034. The network will offer enhanced quality, speeds, reliability, and capacity to meet the increasing data demands, particularly as technologies such as artificial intelligence (AI) become more prevalent.

To support this sustainable growth, we are formulating an energy strategy that guarantees the network's expansion is based on efficient, low-carbon energy solutions. We will re-evaluate and deliver a comprehensive carbon reduction plan at the earliest opportunity.



Improving energy efficiency and renewable supply

We are continuing to invest in on-site renewable electricity generation to diversify and expand our sustainable energy sources.

Transitioning from natural gas

We are phasing out natural gas for heating and hot water across our offices and technical facilities. This year we plan to remove gas from **six** more sites with electric heat pumps and point-of-use water heaters replacing legacy systems.

Reducing diesel generator use

While diesel generators remain essential for emergency and backup power, we are transitioning them to operate on lower-carbon alternatives such as biofuels, hydrotreated vegetable oil (HVO), and hybrid systems incorporating battery or solar power. We are also exploring innovative on-site generation technologies to further reduce reliance on fossil fuels.

Reducing fluorinated gas emissions

We plan to reduce FM200-related emissions across our Mobile Telephone Exchange (MTX) networks by a further **20%** in the next financial year. This includes improving maintenance practices, updating operational standards, and adopting lower Global Warming Potential (GWP) refrigerants during equipment upgrades. As some low-GWP alternatives can be flammable or toxic, we are closely monitoring regulatory developments and technological innovations in this space.



Scope 3 emissions

We plan to work closely across our value chain to reduce our Scope 3 emissions by improving our understanding of our complex supply chain and identifying tangible levers across procurement, product design, and policy.

We will do this by working closely with our suppliers to ensure they are:

- Publicly disclosing Scope 1, 2, and 3 emissions data annually, with third-party verification for Scopes 1 and 2.
- Publicly disclosing a science-based carbon reduction target.
- Establishing goals to improve the energy efficiency of the products they provide, reducing their embodied emissions, and increasing "circularity" through higher reuse and reduced waste, for example.
- Implementing Life Cycle Assessments or Product Carbon Footprints for relevant goods they supply, where feasible.

At a global level, we are partnering with EcoVadis to obtain detailed emissions data from our suppliers. This collaboration will improve transparency and allow us to take targeted actions to lower emissions across our value chain. By engaging directly with our suppliers through the EcoVadis platform, we aim to enhance our understanding of their emissions profiles and work together on effective reduction strategies.

We aim to promote lower-carbon and circular choices to our customers, encouraging them to select energy-efficient devices and use them in ways that reduce emissions. Through communication efforts, we will raise awareness among our consumers about the benefits of choosing lower-carbon products and adopting sustainable usage practices.

We are working towards building a fully circular system for our network equipment and enhancing circularity for hazardous e-waste, which requires specialised waste management processes. Although we have reached an important milestone in reducing network waste, we recognise that there is more work to do in establishing a comprehensive circular economy for our equipment. We understand the importance of managing hazardous e-waste responsibly and will continue to explore innovative solutions to improve its circularity.

We will continue to actively identify reduction opportunities across all Scope 3 categories. Our goal is to accelerate the development of solutions that help our customers, suppliers, and the broader value chain reduce emissions. By continuously monitoring and exploring new reduction opportunities, we aim to drive significant progress in lowering our overall Scope 3 emissions.



→ Declaration and sign off

Commitments and data overview

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard³ and uses the appropriate Government emission conversion factors or equivalents, depending on the data available for greenhouse gas company reporting⁴.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard⁵.

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

Signed on behalf of Vodafone UK:

Nicki Lyons

Nicki Lyons, UK Corporate Affairs & Sustainability Director

Date: 16th July 2025

1. World Bank and ITU, 2024.
2. In 2018 Vodafone Group carried out a materiality assessment to determine its most significant Scope 3 emissions. None of the five categories that the UK Government has mandated to be included in this Carbon Reduction Plan were deemed to be material for Vodafone. Vodafone's main Scope 3 emissions relate to goods and services we purchase, energy-related services, consumer use of sold products and investments. As a result, we did not record Scope 3 data for the categories that UK Government has requested in our baseline year.
3. <https://ghgprotocol.org/corporate-standard>
4. <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>
5. <https://ghgprotocol.org/standards/scope-3-standard>

