Telefónica - Climate Change 2020

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Telefónica is one of the largest telecommunications companies in the world in terms of market capitalisation and number of customers. Supported by the best fixed, mobile and broadband networks, as well as an innovative range of digital and data economy services, our Company is favorably placed to meet the needs of our customers and capture growth in new businesses. Our headquarters is in Madrid (Spain). At the end of 2019, we operated in 14 countries and had a customer base which surpasses **344** million connections throughout Spain, the United Kingdom, Germany and Latin America, where most of our growth strategy is focused. We are, therefore, one of the most international companies in the sector, generating more than 72% of our business outside the domestic market. Movistar (Spain and Latin America, except for Brazil), Vivo (Brazil) and O2 (UK and Germany) are the main brand names around which we structure our commercial offer. We are a wholly private company with **1,2** million direct shareholders. We are listed on the continuous market of the Spanish stock exchanges, as well as on the stock exchanges in New York and Lima. Revenue totalled **48,422** million euros, which represents +3.2% year-on-year organic growth and the net profit totalled 3,574 million euros in 2019 representing a +7.3% year-on year increase. The number of Telefónica employees on 31 December 2019 totalled 113,819, which represents a decrease of 5.3% compared with the previous year. More information at : https://www.Telefónica.com/documents/153952/13347920/2019-Telefónica-Consolidated-Management-Report.pdf/0a9c8382-c9ff-ba52-1d5b-e431a7efab3f (pages 18-21).

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	Yes	3 years

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Argentina
Brazil
Chile
Colombia
Ecuador
Germany
Guatemala
Mexico
Panama
Peru
Puerto Rico
Spain
United Kingdom of Great Britain and Northern Ireland
Uruguay
Venezuela (Bolivarian Republic of)

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	The Board of Directors is responsible for the company's Climate Change Strategy (CCS), as part of the Company's Global Responsible Business Plan. The Committee of the Board of Directors in charge of sustainability and climate change objectives is the Sustainability and Quality Committee, as an evolution from the previous Regulatory and Affairs Committee. This Committee is responsible for the organization's sustainability strategy and the monitoring of the Global Responsible Business Plan, including the evolution of climate change targets & all other climate-related issues. One of the climate-related decisions made by the Board o Director's Sustainability and Quality Committee was the approval of the inclusion of emission targets as one of the non-financial KPIs to be considered in the calculation of the variable remuneration of all the employees. The Committee is made up of four Counsellors. The Senior Directors who report to this committee on CCS are the CSO, COO and CFO to the extent that this strategy affect their responsibilities. Furthermore, the Board of Directors is also in charge of supervising the risk management model, including climate change risks, which are reported to them by the Audit Committee.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	In order to ensure that the corporate governance is undertaken correctly, the Board is divided into 6 separate committees, each one focused on a particular area of the business. In this regard, the Sustainability and Quality Committee is the one in charge of the Sustainability and Climate Change Strategy. This Committee is responsible for the organization's sustainability strategy, and monitors the Global Responsible Business Plan, including the performance of climate-related KPIs such as emissions, renewable energy and energy efficiency objectives. In addition, this Committee monitors the actions planned in the main programs related to climate-related issues such as the Renewable Energy and Energy Efficiency Plans. Additionally, to ensure that the Climate Strategy is engrained in the company's operations, the Board incorporates climate change aspects to all levels of governance, as well as in the strategic indicators and key objectives of the company as a whole. They are included in the company's three-yearly strategic business plan. For example, in late 2018 we announced the Telefónica's Sustainable Financing Framework whereby the company already issued the first Green Bond of the telco sector worldwide in early 2019. Also, early in 2020 we issued the first telco hybrid green bond. This allows the diversification of its portfolio and is aligned to the target related to the business decarbonization strategy and its new targets, which are aligned with the greater ambition of limiting the global temperature rise to 1.5ºC. In addition, this committee has approved that, since 2019, a percentage of the variable remuneration of all employees, including the Board of Directors, is conditional upon the accomplishment of our carbon reduction targets. Moreover, the function of risk management, both locally and at a corporate level, is integrated in the Audit and Control Committee, which receives reports on Climate Change risks as part of the basic risks included in the global Risk Management Model. The Senior Directors who report to these committees are the Director of Sustainability, the Global COO (in charge of Operations) and the Director of Finance (CFO), to the extent that this strategy affects their responsibilities.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Operating Officer (COO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Chief Risks Officer (CRO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Half-yearly
Chief Sustainability Officer (CSO)	<Not Applicable>	Other, please specify (The CSO is in charge of reviewing and reporting the information regarding Energy and Climate Change KPIs, jointly responsible with the COO for the achievement of objectives.)	<Not Applicable>	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

i) Below the Board level – who is ultimately responsible for the approval of the company's Climate Change Strategy – the committee in charge of sustainability and climate change objectives is the **Sustainability and Quality Committee**. This Board committee oversees the implementation of the climate change and environmental initiatives and monitors the progress on the climate change objectives (as well as all other objectives of the Telefonica´s Global Responsible Business Plan). The Director of Sustainability (CSO), the Global COO and the Director of Finance (CFO) report to it.

Our Responsible Business Principles and our Responsible Business Plan, respectively, make up the ethical framework and our roadmap as regards sustainability. Both are approved by the Board of Directors, as are the group's most important policies on this issue. The Sustainability and Quality Committee of the Board supervises the implementation of the Responsible Business Plan at its monthly meetings. In addition, the Audit and Control Committee takes on an important supervisory role as regards ethics and sustainability, as it supervises the compliance area, the risk analysis and management process, and the Company's reporting processes.

The Committee meets 11 times a year, they monitor and assess the progress of the Responsible Business Plan, including the climate change strategy. For example, the Committee closely monitors Telefónica's performance against its carbon reduction targets (SBTs), ensuring emission reductions are in line with the objectives as variable remuneration of Telefónica's entire workforce include this factor. Also, during the year 5 CEOs of the main Telefónica companies report their progress on climate change strategy.

Below this Committee, the Global Climate Change and Energy Efficiency Office (CC&EEO), comprising company-wide departments such as Operations **(led by the COO)**, Environment **(led by the CSO)** and Purchasing, is in charge of the operational implementation of the Company's CC Strategy (including energy efficiency projects, renewable energy purchases and emission reduction activities in all countries). Progress in climate-related aspects (i.e. progress against carbon targets and renewable energy goals) is regularly reported to the Management Committee in each country and reported at a global level to the Sustainability and Quality Committee. The strategy implemented by this Office is coherent with the Company's Responsible Business Plan to foster value creation in the long term through effective risk management and taking advantage of environmental opportunities.

The main associated responsibilities of the CC&EEO are to:
- Assess and monitor Telefónica's environmental KPIs such as energy and fuel consumption, percentage of renewable electricity, scope 1,2 and 3 carbon emissions, etc.
- Ensure climate-related metrics (i.e. absolute and intensity emissions, carbon targets) are reported according to international standards;
- Monitor performance against targets, for example performance against carbon targets (SBTs), against renewable targets (100%), contribution to SDG 13.
- Review compliance with our stakeholders' expectations and ensure high level of performance in climate related indices.
- Permanently monitor possible climate-related regulatory aspects which may affect the company's operations.

Regarding the evaluation and management of climate change risks and opportunities, ultimate responsibility lies with the Chief Risks Officer. **The CRO** is in charge of the risks area, which in turn is responsible for the quarterly evaluation and reporting of the company's risks, in which climate change is included since it is one of Telefónica's basic risks.

ii) The COO is the most suitable executive for the monitoring of the climate-related issues and the achievement of the energy efficiency and reduction targets, because on him/her depends the operation of our network, that is the main energy consumption source of Telefónica. In addition, network infrastructures are the most exposed to the physical Climate Change risks. On the other hand, **the CSO** is responsible for monitoring the achievement of Climate Change targets from emissions reduction perspective.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Environmental strategy is the responsibility of the Board of Directors, which approves the global environmental policy and targets, within the framework of our Responsible Business Plan. For instance, carbon emissions reduction targets are part of the variable remuneration of all the Company's employees, including the Board of Directors. Climate Change has become a strategic issue for the Company.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Chief Operating Officer (COO)	Monetary reward	Efficiency target	Telefónica´s COO, in charge of Operations and IT, has incentives related with energy efficiency, linked directly with one of our global goals of Energy and Climate Change: 85% more efficient by 2025 in terms of MWh/PB. But also has the emission reduction target fulfilment as part of his/her bonus
Corporate executive team	Monetary reward	Emissions reduction target	The Corporate executive team's incentives (and therefore his/her bonus), as well as all Directives and employees with variable remuneration, are linked to the accomplishment of the emissions targets. Therefore, their variable remuneration is directly linked to emission reduction (50% reduction of CO2 emissions by 2025, 70% by 2030 and net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050). The KPIs used to assess performance are annual CO2 emissions reduction.
Chief Procurement Officer (CPO)	Monetary reward	Emissions reduction target	One of our lines of action is low-carbon purchasing: mainly through renewable energy purchase; TCO implementation; and CO2 consideration when purchasing refrigerant gasses. For equipment with high energy consumption, we incorporate the concept of Total Cost of Ownership (TCO) in the acquisition process, thus considering the amount of energy that the equipment will consume during its use and not just the cost of purchase. The TCO makes it possible for us to reduce the Company's energy expenditure and, therefore, the associated carbon emissions. The CPO is responsible for ensuring that this TCO concept is incorporated in the procedures of the purchasing division as well as ensuring renewable energy purchases take place. This directly links with Telefónica's Energy Efficiency and Renewable Energy Plans and hence, with our global goals of Energy and Climate Change. Therefore, the CPO's variable remuneration is directly linked to emission reduction (50% reduction of CO2 emissions by 2025, 70% by 2030 and net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050) and also renewable energy targets (85% renewable electricity by 2025 and 100% by 2030). The KPIs used to assess performance are the annual CO2 emissions reduction and the % renewable electricity.
All employees	Monetary reward	Emissions reduction target	At Telefónica we are committed with the Paris Agreement. As a tangible sign of our commitment to long term sustainability strategy, a percentage of the variable remuneration of our entire team with variable bonus scheme is conditional upon the accomplishment of our carbon reduction targets (50% reduction by 2025, 70% by 2030 and net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050). This applies from the Executive Team to all employees with variable remuneration, including the Chief Sustainability Officer, the Global Head of the Climate Change Office, and environmental/energy managers. The % of the remuneration varies in function of the direct responsibility to emission reduction and the performance (50% reduction of CO2 emissions by 2025, 70% by 2030 and net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050), and the relevant KPI is annual CO2 emissions reduction. In addition, for all environmental and energy managers their bonus is related to our climate change and energy targets (among other environmental targets) at local level. The Global Head of Infrastructure Efficiency's objectives (reporting to COO) are linked to implementation of energy efficiency projects, the reduction of the company's energy costs in the network and the achievement of energy and efficiency targets. She/He has incentives related to energy efficiency, linked with one of our global goals: 85% more efficient by 2025 in terms of MWh/PB;, as well as an impact on the other two: 85% renewable electricity by 2025, and 50% reduction of CO2 emissions by 2025. The following KPIs are used to assess performance: MWh/PB; % renewable energy and annual CO2 emissions reduction. Therefore, these targets are linked to his/her bonus.
Procurement manager	Monetary reward	Emissions reduction target	One of our lines of action is low-carbon purchasing: mainly through renewable energy purchase; TCO implementation; and CO2 consideration when purchasing refrigerant gasses. For equipment with high energy consumption, we incorporate the concept of Total Cost of Ownership (TCO) in the acquisition process, thus considering the amount of energy that the equipment will consume during its use and not just the cost of purchase. The TCO makes it possible for us to reduce the Company's energy expenditure and, therefore, the associated carbon emissions. The purchase managers are responsible for ensuring that this TCO concept is incorporated in the procedures of the purchasing division as well as ensuring renewable energy purchases take place. This directly links with Telefónica's Energy Efficiency and Renewable Energy Plans and hence, with our global goals of Energy and Climate Change. Therefore, the purchase managers have a variable remuneration that is directly linked to emission reduction (50% reduction of CO2 emissions by 2025, 70% by 2030) and also renewable energy targets (85% renewable electricity by 2025). The KPIs used to assess performance are the annual CO2 emissions reduction and the % renewable electricity.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	1	10	These time horizons are in line with our Science Based Targets and our Renewable Energy objectives at short, medium and long term (2015-2025, 2015-2030, 2015-2050), counting from the baseline year (2015). Additionally, they are also in line with the timeframes we have used in the vulnerability analysis of climate-related risks (namely physical risks), since our infrastructures have an estimated lifetime of 20 to 30 years and physical risks related to climate change are expected to have a greater impact in the medium and long terms. They are also in line with our Climate Change 2015-2050, which sets intermediate reduction goals for 2025, 2030 and 2050.
Medium-term	10	15	These time horizons are in line with our Science Based Targets and our Renewable Energy objectives at short, medium and long term (2015-2025, 2015-2030, 2015-2050), counting from the baseline year (2015). Additionally, they are also in line with the timeframes we have used in the vulnerability analysis of climate related risks (namely physical risks), since our infrastructures have an estimated lifetime of 20 to 30 years and physical risks related to climate change are expected to have a greater impact in the medium and long terms. They are also in line with our Climate Change 2015-2050, which sets intermediate reduction goals for 2025, 2030 and 2050.
Long-term	15	35	These time horizons are in line with our Science Based Targets and our Renewable Energy objectives at short, medium and long term (2015-2025, 2015-2030, 2015-2050), counting from the baseline year (2015). Additionally, they are also in line with the timeframes we have used in the vulnerability analysis of climate related risks (namely physical risks), since our infrastructures have an estimated lifetime of 20 to 30 years and physical risks related to climate change are expected to have a greater impact in the medium and long terms. They are also in line with our Climate Change 2015-2050, which sets intermediate reduction goals for 2020, 2030 and 2050.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Telefónica has identified a threshold to determine if a risk has the potential to significantly affect the company and needs to be reported. Our Risk Management corporate policy defines an acceptable risk as the degree of exposure that the company is ready to accept inasmuch as it allows the creation of value, achieving the right balance between growth, performance and risk. This threshold is considered when reviewing our strategy to ensure we operate within the established risk boundaries. What we define as a “reportable risk level” is divided between corporate and local:

a. At a company level, a significant financial impact is either 0.26% of the company´s OIBDA (if the probability of the risk happening is higher than 50%) OR 0.66% (without factoring in probability)

b. At a local asset level, the threshold lies at 0.5% of each asset’s OIBDA, with a minimum financial impact of 2M€, and is updated annually.

OIBDA is considered as the metric to define substantive impact since it is one of the measures of financial performance that Telefonica uses to determine profitability of the company, hence affecting directly the business strategy.

Additionally, a risk is considered to have a **significant strategic impact** if it impacts our ability to meet stakeholders’ expectations either directly or indirectly. In relation to CC, any risk associated with a negative perception of our commitment towards a low carbon economy or adaptation against resource scarcity will be considered a significant strategic impact

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Our Global Risk Management Model allows us to properly identify&evaluate our exposure to climate change(CC)risks&identify the opportunities associated in the short,medium&long term, recognizing the benefits to guarantee a high awareness on risks&the capacity to assign the most effective resources to control&respond to them. We assess risks from 4 different viewpoints to ensure an integral evaluation aligned with the Group's operations&needs:Local (Bottom-Up), Global (Top-Down), Transversal Process&Transversal Projects Risks. The assessment of CC risks is done mainly through the Top-Down approach&supported by specific office evaluation (Bottom-Up). i. Risk identification & assessment Global: To ensure consistency, the Top-Down approach focuses on global R&O that may incur possible losses in value&results from events which affect us in corporate sustainability, markets, shareholders&investors or marketing management. These risks are defined as "Basic Risks" & are assessed&periodically reviewed by the relevant global operational areas (Compliance,Strategy,etc). One of the Basic Risks analysed is CC: including both physical risks that affect our infrastructures/business lines due to chronic CC or extreme weather events&transition risks due to changes in CC regulation or lack of resources. Additionally, we implement TCFD's recommendations to meet our stakeholders demands & so all CC-related risks are analysed in accordance with these recommendations, analysing the potential impacts in different climate scenarios&periods. To facilitate their evaluation&monitoring, each potential risk is assigned a Key Risk Indicator, which considers the following: •Probability&potential impact of each basic risk in each asset & the whole company •Historical&future development trends per risk •Opinion regarding the level of control (self-evaluation) •Potential reputational impact •Potential impact estimation for each basic risk based on the sum of the potential impact of all the specific risks (considering probability&correlation between each) Local: We also use a Bottom-Up approach based on a risk self-assessment, where local managers are responsible for identifying risks in their areas, prioritizing reporting,monitoring&determining their specific response to them (i.e. mitigation plans to avoid/transfer those risks). The same applies to the Transversal Process&Projects Risks. Local risk owners meet periodically (at least half-yearly) to identify, evaluate & manage risks. Whenever possible, risk assessment will be quantitative & potential impact measured against operational cash-flow. To minimise the impact of potential physical risks materialising in our assets, we also manage exposure to acute physical events from an insurance perspective. The modelling is carried out every 3yrs by an external consultant &consists of: 1. Data Collection: Corporate Insurance team compiles info from every location in all countries into the modelling software 2. Analysis&modelling: QA process to correct any errors prior to the modelling, which is based on statistical calculations using the most updated software system (RMS, EQCat, etc.) with historical climate-related events 3. Results &findings: results are broken down by country&risk, establishing the probabilities of possible losses for different return periods. The results are analysed to create the most efficient limits&retentions structure for the insurance program on material damages. Net impact of the identified risks will be compared against the Group's Reportable Risk Level (information on the substantive impact threshold has been provided in C2.1b). ii. Risk management (RM) & prioritization This initial assessment allows us to prioritize RM & incorporate results into long-term business decisions, minimising risks&maximising opportunities. Decision making is based on the financial impact estimated during the assessment risk process&its influence in operational efficiency, access to new markets, reputation, etc. For each identified risk we establish a mitigation plan including an implementation timeline assigning responsibilities.The responsible will update & report the degree of development of each risk using our RM tool. Likewise, local risks will be prioritised in order to review their development&update their potential impact on the company. These risks are then supervised periodically by the Exec Committees at country level & reported to the Corporate Function of RM. This strategy allows us to adapt to both physical & transition changes. Physical risk example: the company undertakes a process to monitor, manage&mitigate the risk of extreme climate events through the introduction of Emergency Committees & Business Continuity Plans at asset level with the aim of re-establishing connectivity asap, reducing the risk of revenue&reputational losses associated to a loss of connectivity, incurring considerable losses. The last reported event was in Perú in 2017 due to the "El Niño" phenomenon, which interrupted our services intermittently resulted in a significant increase of operational costs. The actions carried out under the Emergency Committee to minimize this impact resulted in re-establishment of communications in the 1st hours with the installation of emergency power generators&traffic communication distribution. Transition risk example: establishment of our Renewable Energy (RE) Plan. During our risk assessment we identified the possibility of future fossil fuel price increases, leading to energy price increases. To reduce our dependence we self-generate energy, purchase RE & establish Power Purchase Agreements (PPA). In 2019, Brazil achieved 100% renewable&a second PPA began supplying our operation in Mexico. Regarding self-generation, we gradually increased the base stations of the mobile network that run on renewable energy&we now have 6,621 sites. In summary in 2019, 4,637 GWh came from renewable energy sources enabling us to avoid 1 MtCO2e. iii. Opportunities management The opps linked to a low carbon economy come from both internal management&the development of digital products&services, with specific solutions for the mitigation&adaptation to CC, which we offer to both our customers&society. Among the internal transitional opportunities, the RE Plan stands out, as it allows us to reduce our operating costs, decrease GHG emissions&improve our positioning. From a product development perspective, our greatest contribution is increased digitization, supported by a RE network. Through our services, we are able to reduce GHG emissions in other sectors&increase the resilience of the communities in which we operate. I.e. our IoT&Big Data services are designed to improve our customers' mobility&energy efficiency; our Cloud&video conferencing services also avoid emissions. In this regard, our business objectives are aligned with our sustainability objectives: greater revenues from the sale of EcoSmart services, greater internal eco-efficiency

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Not relevant, included	Telecom sector is not intense in terms of fossil fuels consumption or GHG emissions. Therefore, we are not a regulated sector in terms of emissions in the countries where we are present. However, as the electricity consumption of our network is high, reaching 6,574,002 MWh in 2019, current regulation in Mexico and Argentina requires us 5% and 8% respectively of our electricity consumption in those countries should be renewable from 2018 increasing until 2025 which is why we include this category in our Global Risk Assessment Process as Basic Risk of Climate Change. The estimated economic impact of this risk category is lower than the 0.26% of the OIBDA at company-level and lower than 0.66% of the OIBDA at an asset-level, so it is therefore below the “Reportable Risk Level” that Telefónica sets as the threshold of its significant risks.
Emerging regulation	Not relevant, included	Telecom sector is not intense in terms of fossil fuels consumption or GHG emissions. Therefore, we are not a regulated sector in terms of emissions in the countries where we are present. However, as the electricity consumption of our network is high, reaching 6,574,002 MWh in 2019, current regulation in Mexico and Argentina requires us that 5% and 8% respectively of our electricity consumption in those countries should be renewable from 2018 increasing until 2025. In the climatic scenarios evaluated, we foresee that this regulation could become stricter which is why we include this category in our Global Risk Assessment Process as Basic Risk of Climate Change. The estimated economic impact of this risk category is lower than the 0.26% of the OIBDA at company-level and lower than 0.66% of the OIBDA at an asset-level, so it is therefore below the “Reportable Risk Level” that Telefónica sets as the threshold of its significant risks.
Technology	Not relevant, explanation provided	Currently none of Telefónica's business lines are dependent on any technology that may be displaced by a transition to a low-carbon economy. As an example, broadband networks have been identified as compatible with a low carbon economy by the Climate Bond Initiative. In fact, in 2019 Telefónica issued the first green bond of the sector to finance the deployment of the fibre broad band in Spain and also the first telco hybrid green bond in early 2020.. Moreover, we evaluate this category from the perspective of opportunities, since the services provided by Telefónica are not only not carbon intensive, but also they help its users reduce their own emissions and adapt to climate change. Part of Telefónica’s DNA, the company sees future potential technology shifts as an opportunity as opposed to a risk. In fact, digitalization is expected to be essential to address the transition to a low carbon economy, according to the Smarter 2030, having the ICT sector the potential to reduce 3.6 GtCO2e by 2030. For instance, Telefónica is developing services based on the IoT, Cloud, Big Data and Connectivity in order to enable our customer a more efficient use of resources such as energy and water, improve traffic planning, air quality, reduce greenhouse gas emissions or improve our response to a climate catastrophe. In 2019, the income from these new digital services grew by 17,1% compared to last year In the climatic scenarios evaluated in our global risk evaluation processes, we do not foresee that an increase of technology risk related to climate change could affect significantly Telefónica´s business lines.
Legal	Not relevant, included	Although the potential impact of environmental legal liabilities to Telefónica’s operations associated to energy and emissions is not material due to the services provided not being carbon intensive, legal risks are still considered in the company’s risk evaluation processes. Risks associated to this category include direct or indirect disturbances due to environmental issues, mainly associated to non-compliance during the network deployment, for instance: - Environmental passives: equipment or network components that may cause pollution problems such as fuel tanks in a bad state, AC equipment working with banned refrigerant gases and noise generating equipment. - Deployment of the network with environmental permits, which could cause the suspension of the operation or incur fines. In the climatic scenarios evaluated in our global risk evaluation processes, the estimated economic impact of this risk category is lower than the 0.26% of the OIBDA at company-level and lower than 0.66% of the OIBDA at an asset-level, so it is therefore below the “Reportable Risk Level” set as the threshold of significant risks. And we do not foresee that an increase of legal risk related to climate change could affect significantly Telefónica´s business lines.
Market	Relevant, always included	Market risks are considered in Telefónica’s Global Risk Assessment Process under the Basic Risk of Climate Change due to our significant reliance on electricity. In 2019, our electricity consumption amounted to 6,574,002 MWh. In some countries in which we operate, the grid mix is highly dependent on hydraulic generation (e.g. Both Brazil and Peru approx. 70%). In the climate-related scenarios that we analysed we estimate that annual precipitation in those countries is set to decrease by 20% around 2050. This may imply significant increases in energy prices that will directly affect our OPEX . The estimated economic impact of this risk is higher than the 0.26% of the OIBDA at group level and the probability of it happening is higher than 50%, which is why it is above the “Reportable Risk” threshold.
Reputation	Relevant, always included	Reputational risks related to climate aspects such as the ones explained below are considered by Telefónica to be Basic Climate-Related Risks, and therefore are always included in the company wide’s risks’ assessment and evaluation. For instance, greater demand of information by investors and shareholders, maintaining consistency in the CC management, alignment with the TCFD. A concrete example is the case of Black Rock, one of our main investors and the world’s largest asset manager. In his influential annual letter to chief executives in 2020, the firm confirmed that they will avoid investing in companies that “present a high sustainability-related risk”. This shift in their investment policy could potentially lead to a reduction in the perceived value of our company should Telefonica become unable to meet these new expectations. Additionally, non-compliance with environmental law from any of our suppliers that may lead to a negative impact in Telefónica’s reputation. Although the estimated economic impact of this risk category is lower than the 0.26% of the OIBDA at company-level and lower than 0.66% of the OIBDA at an asset-level, as per our definition in C2.1b we consider this risk to have a significant strategic impact, as it impacts our ability to meet stakeholders’ expectations, i.e. a negative perception from our stakeholders of our commitment towards a low carbon economy or adaptation against resource scarcity
Acute physical	Relevant, always included	Acute physical climate risks are considered in Telefónica’s Global Risk Assessment Process under the Basic Risk of Climate Change and therefore are always included in the company’s risks assessment and evaluation. Our greatest exposure to physical risks lies in our landline and mobile network infrastructure, mainly in Latin America. Extreme climatic events are one of the two main climatic parameters that could have greater impact for Telefónica. As part of our risk identification process, we analyse the probability and impact that different extreme climatic events, set to become more frequent, could have on our infrastructures and operations (for instance, service disruptions, increase of the insurance cost, etc). For instance, exposure to acute physical events from an insurance perspective is managed by our Corporate Insurance Department in an effort to protect assets. The modelling for this is carried out by an external consultant and consists of the following: 1. Data Collection: The Corporate Insurance area compile the necessary information into the modelling software. In this step, information is collected on every location in all countries. 2. Analysis and modelling: these are done jointly with the consultant, in order to correct GPS errors and/or any other incongruence that may be detected. Once the quality control is done, the external consultant, using the relevant software system (RMS, EQCat, etc.) - updated with catastrophic information and historical climate-related events -, performs the modelling based on statistical and probability calculations. 3. Results and findings: results are broken down by country and risk, establishing for different return periods the probabilities of possible losses. The obtained results are analysed to look for the most efficient structure in limits and retentions for the insurance program in the area of material damages. In addition to the analysis conducted through our risk identification process, we carried out a Climate Vulnerability study to evaluate the exposure degree of our different business lines in each of country. The estimated economic impact of this risk is higher than the 0.26% of the OIBDA at group level and the probability of it happening is higher than 50%, which is why it is above the “Reportable Risk” threshold.
Chronic physical	Relevant, always included	Chronic physical climate risks are considered in Telefónica’s Global Risk Assessment Process under the Basic Risk of Climate Change and therefore are always included in the company’s risks assessment and evaluation. Our greatest exposure to physical risks lies in our network infrastructure, mainly in Latin America. One of the climatic parameters that will affect us the most is the temperature increases, which could cause failures in the telecom equipment, would require more cooling and consequently more energy consumption. All this will translate into a greater need for OPEX and CAPEX. The estimated economic impact of this risk is higher than the 0.26% of the OIBDA at group level and the probability of it happening is higher than 50%, which is why it is above the “Reportable Risk” threshold. As part of our risk identification process, we analyse the probability and impact that gradual changes in climate (temperature, rainfall, sea level) could have on our infrastructures and operations, for instance due to an increase in cooling needs due to rising temperatures. In addition to the analysis conducted through our risk identification process, we also carried out a Climate Vulnerability study to evaluate the exposure degree of our different business lines in each of country.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Rising mean temperatures

Primary potential financial impact
Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Rising mean temperatures could increase Telefónica's operating costs due mostly to the increase on refrigeration needs of network equipment. Our study on Climate Change Adaptation highlights that temperature increase is one of the main significant climatic threats to our activity. The increase of the global average temperature would affect directly the operational conditions of our network equipment, especially in data centres, fixed operational buildings and cell sites. High temperatures can affect the telecommunication equipment producing failures, write-offs and early retirement and therefore increase the risk of service disruption; therefore, cooling is essential. Nowadays it represents an average of 40% of energy consumption in our network. In the climate scenario analysed, the average temperatures are expected to increase until 2050 in all countries where we operate. Brazil stands out with an increase of 4ºC, Spain with 2ºC and Central America with 2.5ºC. Therefore, cooling needs and operational costs could also rise. The electricity consumption of our network was 6,574,002 MWh in 2019. Our network consumption in responsible for more than 90%, from which 40% corresponds to our refrigerant needs. Small increases due to greater cooling needs may incur higher energy costs. For example, a 10% increase of the electricity consumption of our network would have an average impact of 77 million euros in our energy Opex. According to our Global Risk Analysis, Procedure, the estimated economic impact of this risk is classified as substantive. To avoid this risk Telefónica has several action lines with the objective of reducing cooling needs. With this purpose we promote energy efficiency projects, like free-cooling and also, we include more critical technical specifications in the network equipment we are buying from now so it can work under higher temperatures.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
16200000

Potential financial impact figure – maximum (currency)
43000000

Explanation of financial impact figure
The financial impact of this risk is calculated by analysing the expected temperature increase in the climatic scenarios analysed and its possible impact on our operations considering that we did not carry out any control, mitigation or adaptation action. We consider that the main impacts that could affect our P&L are the following: - CAPEX increase for replacement of IT equipment - OPEX Increase due to a greater need for maintenance - Energy OPEX increase due to greater cooling needs of our network The final financial figures have been calculated based on an energy consumption modelling of our network at different operating temperatures foreseen in scenario RCP 8.5 (maximum potential impact) and the Paris Agreement scenario (minimum potential impact) that implies an increase in Energy OPEX due to greater cooling needs of our network. In this model we also include how CAPEX for replacement of IT equipment may increase as well as OPEX due to greater need for maintenance. Telefónica uses statistical models to determine the financial impact of relevant climate change risks. Due to the complexity of these models, as well as the confidential and sensitive nature of this information, a simplified quantitative breakdown of the rationale for the figures reported is given below: Overall, financial impact ranges come from: Σ (Δ IT CAPEX+Δ IT OPEX+Δ ENERGY OPEX) i. Minimum impact – considering Paris Agreement scenario: We take our average on energy OPEX assuming an increase of 1.5% of this cost that is equal to 13,6M€, plus an increase of the total CAPEX for replacement of IT equipment (0.7 M€) and OPEX due to maintenance (1.9 M€). 16.2 M€ = 13,6M€ + 0.7M€ + 1.9M€ ii. Maximum impact – considering scenario RCP 8.5 We take our average on energy OPEX assuming an increase of 4% of this cost that is equal to 33,9M€, plus an increase of the total CAPEX for replacement of IT equipment (2.2 M€), OPEX due to maintenance (6 M€) 43 M€ = 34M€ + 2.5 M€ + 6.5M€

Cost of response to risk
16650000

Description of response and explanation of cost calculation
To manage this risk, Telefónica has several action lines with the objective of reducing cooling needs. With this purpose we promote energy efficiency projects, like free-cooling and also we include more critical technical specifications in the network equipment we are buying so it can work under higher temperatures. As part of our Energy Efficiency Plan, in 2019 we have implemented cooling projects in networks and offices to increase its efficiency, such as HVAC equipment renovation projects; using free cooling to cool with air directly from the outside. In 2019 we also managed to implement 7 projects under a new disruptive business model called Energy Savings as a Service (ESaaS); which totally changes the way we optimise our infrastructure. Since 2010, under our Energy Efficiency Plan we have implemented 863 projects, achieving savings of more than 602 million euros on energy, avoiding 1.6 million tCO2 and savings of 5200 GWh. In 2019 we implemented 189 initiatives leading to savings of 313 GWh and preventing over 105 ktCO2e. We also modified our purchasing criteria to purchase equipment with greater resistance to high temperatures, reducing the need for cooling of our networks and we have implemented ISO 50001 on energy management systems in our operations in Spain and Germany (which account for approximately 42% of our revenues), and we are working to extend this standard to other operations, thereby ensuring that the energy efficiency and management of our Network are continuously improving. The cost of management has been calculated considering the CAPEX involved in the Energy Efficiency Plan (98% of cost) and costs related to the implementation and maintenance of Energy Management Systems (2% of cost). Σ(Energy Efficiency Projects CAPEX + Energy Management Systems) = 16,650,000€

Comment

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

The two main financial impact driver are the damages to our network assets and the income losses for services disruption due to electricity cut and damage to our telecommunication equipment

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
An increase in severity and extreme weather events such as cyclones and floods can damage Telefónica´s infrastructure, mainly our telecommunication network assets. Our Climate Change Adaptation Study highlights that one of the most significant climatic threat to the activity of Telefónica is the increase in the frequency and intensity of extreme weather events. They can cause physical damage to our infrastructures and therefore could produce service and operations disruptions. In the climate scenario that we have analysed, the greatest exposure to physical risks lies in the infrastructure that supports fixed and mobile connectivity. For other business lines such as Data Centres or Submarine Cable the exposition to this risk is not significant. As a result, Telefónica's assets with greater exposure to risk are: Base Stations and Fixed Line network. The geographical area with the greatest exposure is Latin America. In this zone, the countries in which we are present where a greater increase in extreme events is expected are those located in Central America, Peru and Ecuador. In the case of Central America and Ecuador although the degree of vulnerability is high, the turnover of these operations represents in 2019 only 2.2% of revenues from Telefónica. However, Peru alone accounts for 4.34% of the Telefónica Group's revenues. The estimated economic impact of this risk according to our Global Risk Analysis Procedure is classified as substantive.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
34000000

Potential financial impact figure – maximum (currency)
45000000

Explanation of financial impact figure
The financial impact of this risk is calculated by analysing the extreme weather events forecast of the countries in which we have presence and its possible impact assuming we did not carry out any control, mitigation or adaptation action. The financial impact has been calculated based on the results of our Climate Scenario Analysis, considering scenario RCP 8.5 (maximum potential impact) and the Paris Agreement scenario (minimum potential impact). These two scenarios forecast an increased insurance costs to secure our network infrastructure; an OPEX Increase due to a greater need for maintenance to restore our services; the potential application of fines and penalties because in some countries new regulations states that suppliers of mobile communications should ensure the operation of the service, even in situations of emergency or disaster and most importantly a CAPEX increase due to the damage in our network assets and INCOME losses for services disruption due to damage in the telecom equipment or electricity cuts. Total potential impact has been estimated according to the two climatic scenarios considered and a range of potential increase in costs. Telefónica uses statistical models to determine the financial impact of relevant climate change risks. Due to the complexity of these models, as well as the confidential and sensitive nature of this information, a simplified quantitative breakdown of the rationale for the figures reported is given below: Overall, financial impact ranges come from: Σ (INCOME LOSSES&PENALTIES + Δ NETWORK OPEX + Δ NETWORK CAPEX + Δ INSURANCE COSTS) i. Minimum impact – considering Paris Agreement scenario: 34 M€ = 13.5 M€ of INCOME LOSSES&PENALTIES + 8M€ of NETWORK CAPEX + 2,5M€ of NETWORK OPEX + 10M€ of INSURANCE ii. Maximum impact – considering scenario RCP 8.5 45 M€ = 17.8M€ of (NCOME LOSSES&PENALTIES + 10,7M€ of NETWORK CAPEX + 3.5M€ of NETWORK OPEX)+ 13M€ INSURANCE

Cost of response to risk
10000000

Description of response and explanation of cost calculation
To manage this risk, we have Global Business Continuity (GBC) Regulations to prescribe preventive risk management, ensuring the maximum resilience of our operations in the face of any potential interruption. These include: a) Business Continuity Plans in each country establishing how to restore essential functions that have been interrupted b) Global Crisis Management System to manage high impact threats. It has a Global Crisis Committee, including specialists for each type of incident (i.e. natural catastrophes). The Committee acts in 4 phases: i) alert of the crisis at local level ii) evaluation of the impact globally iii) development and implementation of the action procedures iv) return to normality post-crisis As an example, the last reported event for which we followed this plan was in Peru in 2017 due to the “El Niño”. It interrupted our services and to re-establish them we activated our Contingency Plan that ended up in a cost of more than 1M€. The actions carried out under the Emergency Committee resulted in re-establishment of communications in the first hours. In order to mitigate the more critical effects of acute risks, Telefónica’s Corporate Assurance Dept. also determines the most appropriate insurance contracts and premiums for each country based on the outcomes of climate modelling. This considers the risk exposure of that specific country (e.g. higher in Latam). The cost of responding to this risk management considers the costs associated of having a Global Business Continuity System (25%) in all countries and average costs of Insurance. Among these the most relevant cost is the Insurance, representing 75%. Overall, the cost of management comes from: Σ (Global Continuity Plan annual cost + Insurance annual cost) = 10,000,000

Comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Market	Increased cost of raw materials

Primary potential financial impact
Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
An increase in energy costs is one of our main climate related risks. As we explained in the sections above, Telecom sector is not intense in terms of fossil fuels but is very dependent on the electricity consumption for its networks. In 2019 our total electricity consumption reached 6,574,002 MWh . For this reason, an increase in the electricity price due to emerging regulation of the electricity generation sector or shortage of natural resources, may have a high impact on our energy OPEX. In this sense we differentiate two types of risks according to the electric mix of the countries in which we are present: (i) Countries with an electric mix highly dependent on fossil fuels: the increase on fuel and energy taxes and regulations can cause increases in electricity production costs and therefore increase kWh price. This is the case of countries like Germany, where non-renewable sources account for 54.7% of the total generation (ii) Countries with an electric mix with a high percentage of hydraulic generation: These countries have a high vulnerability to drought periods so water stress can also increase electricity prices. This is the case of Brazil and Peru both with approximately 70% of hydro generation in their energy mix. In the climate scenarios analysed by Telefónica, rainfall decrease is expected in some of the countries where we operate until 2050. Brazil stands out with a decrease of 20%, Mexico 25% or Germany 10%. The estimated economic impact of this risk according to our Global Risk Analysis Procedure is classified as substantive. For example, water scarcity has already affected our operations in Brazil in the past: in 2015 energy prices increased by 20% due to a significant decrease in rainfall in the country. This produced a financial impact of 80 million euros for Telefónica in one year.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
25160000

Potential financial impact figure – maximum (currency)
58700000

Explanation of financial impact figure
The financial impact of this risk is calculated by analysing the expected energy price in the climatic scenarios analysed and its possible impact on our operations assuming we do not carry out any control, mitigation or adaptation action. The most significant economic impacts would be the energy OPEX increase in our landline and mobile connectivity business and also in our Data Centres. The financial impact has been calculated based on the results of our Climate Scenario Analysis, considering the Paris Agreement scenario (minimum potential impact) and the RCP 8.5 scenario (maximum potential impact). According to the two scenarios included in our vulnerability analysis, we forecast a potential increase on the average energy price as well as an energy consumption variation of 3% (Paris Agreement scenario), potentially reaching 7% (scenario RCP 8.5). Telefónica uses statistical models to determine the financial impact of relevant climate change risks. Due to the complexity of these models, as well as the confidential and sensitive nature of this information, a simplified quantitative breakdown of the rationale for the figures reported is given below: Overall, financial impact ranges come from: i. Minimum impact – considering Paris Agreement scenario: Increase in 3% of Energy OPEX costs = 3% * (838 M€) = 25.16 M€ ii. Maximum impact – considering scenario RCP 8.5 Increase in 7% of Energy OPEX costs = 7% * (838 M€) = 58.7 M€

Cost of response to risk
2855000

Description of response and explanation of cost calculation
In order to manage this risk and reduce our exposure to increasing energy prices we have in place 2 main plans: (i) Energy Efficiency Plan: Since 2010 we have implemented 863 projects under this plan achieving savings of more than 5.200 GWh and 602 M€ on energy. For example, in 2019 we implemented 189 initiatives leading to savings of 313 GWh and preventing over 105 ktCO2e . These efforts are reflected in a 72% improvement in our energy intensity ratios (MWh/PB) compared to 2015. In 2019 our networks transmitted 60,406 PB and we keep on decoupling our services' growth from energy consumption, reducing significantly the risk of an increase in our electricity OPEX. The objective of these projects is to increase our network efficiency, e.g by replacing copper by fibre optic; shutting down legacy networks and reducing fuel consumption by implementing hybrid stations. (ii) Telefónica has a Renewable Energy Plan which reduces our operating costs and makes us less dependent on fluctuations in fossil fuel prices. Our Renewable Energy plan projects potential savings in energy OPEX that could reach more than 25% in 2030. Indeed, Telefónica's Renewable Energy Plan was awarded the GLOMO 2019 in the Green category at the Mobile World Congress. To manage this risk we have committed to making our electricity consumption 100% renewable by 2030 and adhering to RE100 initiative. For example, in Mexico through the sing of a PPA we are saving between 30% of electricity costs. The cost of management considers the costs associated to the actions included in our Renewable Energy Plan in 2019, mainly the development of PPAs (mainly in Spain and México) or similar agreements (distributed generation in Brazil), the purchase of Guarantees of Origin in Brazil, Chile, Colombia and Europe, as well as the CAPEX of the Renewable Energy Plan which includes investment in self generation equipment. Overall, the cost of management comes from: Σ 1.895.000 of [PPA + GOO] + 960.000 of REP Capex = 2,855,000

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development and/or expansion of low emission goods and services

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Telefónica has identified opportunities in a low carbon economy for business growth, by selling products that reduce our customers' carbon emissions. In this sense, digitalization will be essential to address the transition to a low carbon economy. According to the Smarter 2030, the ICT sector has the potential to reduce 3.6 GtCO2 by 2030. Telefónica's business strategy is committed to the digital revolution to address environmental challenges, which is why we are promoting the sale and development of new products in the following business lines: services based on the IoT, Cloud, Big Data and Broadband Connectivity. In 2019 we had a sustained annual growth of these services of over 30% which represents an increase of 17.1% of our income from these new digital services. Most of the portfolio of these products focus on enabling our customers to make a more efficient use of resources such as energy and water, improve traffic planning, air quality, reduce greenhouse gas emissions or improve our response to a climate catastrophe. In regards to IoT, we highlight some of the most important services provided in 2019: - Smart energy meters for our customers, such as the case of the United Kingdom where Telefónica manages millions of connected gas and electricity meters. - Mobility optimisation solutions, such as our fleet management or asset tracking solutions - Energy efficient solutions for smart cities, based on optimising lighting, using parking spaces and managing and collecting waste - Energy optimisation solutions for businesses, agricultural optimisation solutions such as Smart Agro or E-health solutions to facilitate remote medical care As a result, in 2019 IoT in Telefónica closed with more than 24 million IoT lines for our customers. We also offer Ecosmart services based on Big Data and Cloud services that improve decision-making processes and help reduce consumption of resources in our customers. Some of the Big Data services that we currently offer are LUCA Energy and LUCA Fleet. Both analyse the information collected by the IoT sensors and offer relevant data in order to reduce energy or fuel consumption. LUCA transit helps optimize planning of infrastructures and public transport systems in cities and reduces air pollution.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
208600000

Potential financial impact figure – maximum (currency)
475000000

Explanation of financial impact figure
Telefonica's Digital Services Revenue in 2019 amounted to 7,700 M€. Telefónica has identified opportunities in a low carbon economy for business growth, by selling products that reduce our customers' carbon emissions. In this sense, digitalization will be essential to address the transition to a low carbon economy. Telefónica estimates potential increases in revenues due to both: - Services that we currently have in our portfolio and we expect their sales volume will increase in the coming years. Some examples are broadband connectivity for Teleworking, Smart Energy Management, Fleet Management, Smart Agro (IoT services) and Cloud solutions. - Expected sales volume of new products and services currently under development. Some examples are fire-prevention with drones or renewable energy generation systems in remote mobile antennas or new services that will be possible thanks to 5G technology. Telefónica uses statistical models to determine the financial impact of relevant climate change risks and opportunities. Due to the complexity of these models, as well as the confidential and sensitive nature of this information, a simplified quantitative breakdown of the rationale for the figures reported is given below: We estimate the economic potential of this opportunity to be an increase in revenue of 3 and 6% of current revenue from Digital services. i. Minimum impact – increase in 3% of Digital Services Revenue = 3% * 7,700 M€ = 208.6 M€ ii. Maximum impact – increase in 6% of Digital Services Revenue = 6% * 7,700 M€ = 475 M€

Cost to realize opportunity
23400000

Strategy to realize opportunity and explanation of cost calculation
The company sees future potential technology as an opportunity and digitalization will be essential to addressing the environmental challenges. Given this potential Telefónica created LUCA, a Big Data services unit and a IoT business unit to promote the development and sale of new products based on Broadband Connectivity, IoT, Cloud and Big Data, with positive impact on the adaptation and mitigation of Climate Change. In addition in 2018 we launched a new brand "Telefónica Empresas" in Spain, to bring together and offer all these services to our B2B customers. By the end of 2019, Telefónica Tech was created to boost the growth of digital services involving IoT/Big Data, cloud and cybersecurity. The resulting organisation will enable us to to become more agile in implementing the changes needed to provide better service to our customers, grow and take advantage of the Group's scale and synergies. Telefónica Tech brings together the digital businesses with high growth potential and aims to be the partner which supports other companies in their digital transformation. This strategy has already allowed us to materialize this opportunity, in 2019 the income from these new Digital Services represented 16% of Telefónica's global revenues. In 2019, thanks to IoT's services for fleet management, building energy, video/audio conferences, cloud services and connectivity to promote teleworking and eliminate the travelling associated with attending meetings on site, we avoided 3.2 million tonnes of CO2 from being generated by our customers. As our business strategy is committed to the potential of these on these new digital services, we have set the new objective Ten To One for 2025: Avoid 10 tonnes of CO2 in customers for each tonne emitted by Telefónica in 2025 (Net Positive). The cost to realize this opportunity is 23,4M€. It has taken into account the average budget dedicated to R&D activities to develop new digital (65%) services such as Dashfleet, Trocafone and ChargedUp, as well as improvements to the ones we already offer related to climate change (35%), such as Luca Fleet, Luca Transit and Smart Cities; services that are based on Iot, Big Data, Moonshots and Connectivity among others. Overall, the cost of management comes from: Σ [Capex New Digital services]+ [Capex Improvement of current digital services]= 23,400,000

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient production and distribution processes

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
Telefónica has an important opportunity associated to cost reduction coming from energy management. As we have explained in question 2.3a the electricity consumption of our network is high, reaching 6,574,002 MWh in 2019, so increases in our consumption needs or in electricity price because of climate change lead to higher costs for Telefónica. As our network evolves due to technology evolution, we could have energy increasing demands, as an example, an increase of 10% in our energy consumption would mean an average increase of 77 million euros in Telefónica´s electricity OPEX. Telefónica´s Energy Efficiency Plan allows us to manage this risk, but also we consider it as an opportunity because it provides us with an important competitive advantage in our sector as it increases the efficiency and resilience of our networks and also reduces our operating costs. This allow us to increase the quality and technologies that we offer to our clients (3G, 4G, Broadband), without an increase in fares. With the Energy Efficiency Plan our objective is to decouple the growth of our business from energy consumption and that is why it is integrated into our global climate change strategy. Our energy consumption is almost stable, although the data traffic passing through our networks in increasing in an exponential way.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
22500000

Potential financial impact figure – maximum (currency)
50000000

Explanation of financial impact figure
The financial impact of this opportunity is calculated by projecting what would be the energy consumption of our network and the kWh price in the climate scenario analysed and what are the potential Energy savings that we can achieve with our Energy Efficiency Plan. The estimated annual savings of the projects developed under this plan are approximately between 22,5 and 43 million euros. Since 2010 our Energy Efficiency Plan has allowed us to achieve 602 million euros of energy savings. Only in 2019, we implemented 189 projects leading to savings of 313 GWh and preventing 105 ktCO2, and achieving savings of 41.14 million euros. These estimated savings will increase if energy prices or taxes increase in the future. Telefónica uses statistical models to determine the financial impact of relevant climate change risks and opportunities. Due to the complexity of these models, as well as the confidential and sensitive nature of this information, a simplified quantitative breakdown of the rationale for the figures reported is given below. We estimate an economic potential of this opportunity of 3% and 6% of savings in our Energy Opex. i. Minimum impact:–3% of savings as per Paris Agreement: = 3% * (838 M€) = 22.5 M€ ii. Maximum impact:–6% of savings as per Scenario RCP 8.5 = 6% * (838 M€) = 50 M€

Cost to realize opportunity
16300000

Strategy to realize opportunity and explanation of cost calculation
Telefónica´s Climate Change strategy includes 3 global energy and GHG emissions targets. One of them focus on taking advantage of this opportunity: - Reduce energy consumption per traffic unit (MWh/PB) by 85% in 2025 compared to 2015 In order to achieve these strategic objectives, in 2010 Telefónica established an Energy Efficiency (EE) Plan and in 2019 a new target was set. Since 2010, we have implemented 863 projects under this plan. These projects are mainly developed in our infrastructures of fixed and mobile network, offices and data centers. During 2019 we undertook 189 Energy Efficiency projects, achieving savings of 41.14 million euros, leading to savings of 313GWh and avoiding the emission of over 105 ktCO2 eq. The projects cover all the different possibilities of efficiency: lighting; PSF (Power Saving Features); cooling; rectifiers and power update; network transformation. These efforts have made it possible for us in 2019 to reduce energy intensity per traffic by 72% compared to 2015 (MWh/PB). The cost to realize this opportunity considers the CAPEX involved in the EE Plan, in projects that are mainly developed in our infrastructures of fixed and mobile network, offices and data centers, which amounted to 16,3M€.

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Upstream

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
On top of the Energy Efficiency Plan explained in Opp2 which objective is to minimise energy consumption, Telefonica has also identified an important opportunity associated with the use of lower-emission sources of energy. This provides us with an important competitive advantage since it reduces our exposure to energy price volatility and foresees potential OPEX savings of 6% by 2020, with the possibility to reach 25% by 2030. As we have explained in question 2.3a the electricity consumption of our network is high, reaching 6,574,002 MWh in 2019, so increases in kWh price because the increase on the fuels or a lower availability of water for hydroelectric generation taxes may incur high costs for Telefónica. As an example, an increase in the price of energy of 10% would mean an increase of 77 million euros in Telefónica´s electricity OPEX. In 2019, Telefonica's Renewable Energy Plan allowed us to save 4% of our Electricity Opex compared to regulated tariffs. At Telefónica we have seen important cost opportunities linked to renewable energy, in Mexico, for instance, moving to a renewable PPA solution which is offering us approximately 30% reduction cost

in the electricity bill. Another example is the Distributed Generation project, which is still on-going, has allowed Telefónica Brazil to save 22% on average, compared to the regulated tariffs. In summary the main benefits of this opportunity is the resilience improvement of our business and also the reduction of our operational costs.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
50000000

Potential financial impact figure – maximum (currency)
218000000

Explanation of financial impact figure
The financial impact is calculated by projecting what would be the energy consumption of our network and the kWh price in the climate scenario analysed and what is the potential average price of energy that we can achieve thanks to the long-term purchase agreements executed under our Renewable Energy Plan. We consider different mixes between the following solutions: self-generation, purchasing renewable energy with guarantees of origin, and long-term Power Purchase Agreement (PPAs). According to our calculations, taking into account the time horizons and the percentage of renewable energy that we will consume in each of the countries, and the path defined in our Renewable Energy Plan, we have the objective of achieving 85% of electricity consumption from renewable sources by 2025 and 100% by 2030. As a result Telefónica´s Renewable Energy Plan forecasts potential OPEX savings of 6% for 2020, with the possibility to reach 25% by 2030. The lower value of the threshold corresponds to savings already achieved in 2019 - all of these actions combined have amounted to 6% of the company's energy OPEX compared against the company's BAU, and the higher value is an estimation based on expected savings from implementation of PPAs. Taking our average on energy OPEX, to calculate potential impact in economic terms we used the following formula: i. Minimum impact – savings in energy OPEX of 6%= 6% * (838 M€) = 50 M€ ii. Maximum impact – savings in energy OPEX of 25%= 25% * (838 M€ = 218 M€

Cost to realize opportunity
2855000

Strategy to realize opportunity and explanation of cost calculation
Telefónica´s Climate Change strategy includes 3 global energy and GHG emissions targets. One of them focus on taking advantage of this opportunity: Commit to renewable energies as a sustainable source for our business, achieving 85% of electricity consumption from renewable sources by 2025 and 100% by 2030. In order to achieve this strategic objective, in 2016 Telefónica established the Renewable Energy Plan, considering all kinds of solutions: self-generation, purchasing renewable energy with guarantees of origin, distributed generation and long-term PPAs. In 2019, Brazil made outstanding progress compared to the previous year, achieving 100% renewable. In addition, thanks to the extension of GO programmes in Latin America, countries such as Colombia, Chile and Peru, managed to certify a considerable percentage of their renewable-source energy over the course of the year. Finally, in 2019 a second PPA began supplying our operation in Mexico, in this case with energy from a wind farm. Regarding self-generation, we gradually increased the base stations of the mobile network that run on renewable energy, and we now have 6,621 sites. This also allows us to avoid using fuel-powered generators in isolated base stations, thus achieving a reduction in fuel consumption between 70% and 100%. As a result in 2019 we achieved a renewable-sourced electricity consumption of 81.6%, being 100% RE in Europe and Brazil. This has enabled us to avoid the emission of around 1 million tCO2e.Indeed, Telefónica's Renewable Energy Plan was awarded the GLOMO 2019 in the Green category at the Mobile World Congress. The cost of management considers the costs associated to the actions included in our Renewable Energy Plan in 2019, mainly the development of PPAs (mainly in Spain and México) or similar agreements (distributed generation in Brazil), the purchase of Guarantees of Origin in Latin America and Europe, as well as the CAPEX of the Renewable Energy Plan. The cost of management considers total investment already made in 2019 associated to our Renewable Energy Plan (REP): [PPA-related costs (ncluding distributed generation)], [costs of GOOs], [REP Capex]: Σ 1.895.000 of [PPA + GOO] + 960.000 of REP Capex = 2,855,000

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?
Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?
Yes, quantitative

C3.1b

(C3.1b) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
RCP 8.5	i) Methodology, inputs& assumptions: We selected the worst-case(RCP 8.5) &the target scenario (RCP2.6) to understand the different impact & scale for our operations should action & no action be taken. As our main source of input, we used the Spanish Office for CC´s methodology for the identification of the main climate-related impacts for businesses. We divided our scenario analysis in 6 phases: 1)Probability analysis of the most relevant climate threats affecting Telefónica 2)Regional analysis of the consequences of these risks on our operations (economic, operational, physical &security aspects) 3)Risk analysis based on the results obtained from (1)&(2), broken down by threat & region 4)Adaptation capacity analysis: taking into account cross-cutting variables (governmental &business planning), economic variables (resources &infrastructures) & social variables (information &knowledge) 5)Vulnerability analysis based on (3)&(4) broken down by threat & region 6)Estimation of the financial impact of these risks in our most vulnerable business lines&countries up to 2030. For this we consider asset depreciation, management, operations &maintenance, reputational losses. Assumptions: Telefónica used a series of common hypotheses for all the countries evaluated. i.e.: Increase in physical damages based on 2006 Stern Review on the Economics of CC (5-6C scenario); Economic value of the impacts based on Telefónica's historical business &country-specific data; Current electric generation mix in our operating countries. ii)&iii) Boundaries &time horizons: We considered 3 time horizons: 2011-2040, 2041-2070 &2071-2100. We analysed all our business lines in all the countries with presence, considering all the climate variables that could have an impact in our operations: extreme climate events, changes in temperature,etc. These are aligned with our strategy, since we have a carbon reduction target for the period 2011-2040 (mid-term target for 2030) & a long-term one for 2050 (incl. in the period 2041-2070). Moreover, the estimated lifetime of our infrastructures is 20-30 years, also aligned with these horizons. iv)Results: •Fixed &mobile connectivity in the LatAm region are our business lines with greater vulnerability •Extreme climatic events &the increase of temperatures are the climatic variables with greater incidence •Considering risk exposure &business volume, Brazil &Peru are the most vulnerable due to the income they represent for the Group. The largest potential costs are: •Increases in energy prices in countries very dependent on hydropower •Increase in our network electricity consumption due to greater air conditioning needs •Increase of operation &maintenance costs •Loss of income due to service disruptions. v)The analysis has already influenced our strategy: In order to manage these impacts, we have created lines of work that help increase our resilience to CC. The main measures are: Business Continuity Plans for climate disasters & Energy Efficiency (EEP) &Renewable Energy Plans(REP), which enable us to reduce power & fossil fuel consumption & emissions vi) Case study of how results have impacted strategy: .•It has impacted our purchasing practises acquiring equipment with greater resistance to high temperatures, reducing the need for cooling •Contracting of PPAs to mitigate market risks. •Established an EEP to optimise power consumption in our network. In 2019 we implemented 189 initiatives in our networks &offices, avoiding >105 ktCO2e. The global initiatives include upgrading our network to increase its efficiency(e.g. replacing copper with fibre optic; power &HVAC equipment renovation projects; using free cooling; shutting down legacy networks; implementing power-saving features in the access network &reducing fuel consumption by implementing hybrid stations). This effort is reflected in a 72% improvement in our energy intensity ratios (MWh/PB) compared to 2015 &we separated the growth of our services from power consumption
RCP 2.6	In the development of our climate targets, our study used the 2DS model with the aim of setting Science Based Targets. a) Boundaries and time horizons Through its commitment, Telefonica aims to disassociate business growth from increase in greenhouse gas emissions. In the analysis of these objectives, the company included the following Scope 1 and 2 emissions: - Telecommunications services supported by our facilities (Network, Data Centres, Call Centres, Offices, Shops and Company-Owned Vehicles) - Energy Consumption - Refrigerant Gases. In terms of the geographical scope, our analysis covered the businesses in Spain, UK, Germany, Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, México, Nicaragua, Panamá, Perú, Uruguay, Venezuela, USA, and our submarine cable landing stations where they are (e.g. Puerto Rico). This means no exclusions took place for the analysis. In terms of time horizons, the evaluation determined Science Based Targets for 2020 and 2030. These time horizons are aligned with our strategy, since the estimated lifetime of our infrastructures is 20 to 30 years. b) Methodology used based on the 2DS model developed by the IEA, Telefónica used the Sectorial Decarbonisation Approach (SDA) methodology to assess both the absolute and intensity reductions required to be in line with climate science. To undergo this analysis, we chose to apply the SDA methodology since there is no established methodology for our sector. c) Hypothesis and assumptions: Our predictive model of emissions considering the energy savings that we will obtain from the energy efficiency plan (based on historical data of the company), as well as the reduction of emissions derived from the route established in our renewable energy plan. We also consider an estimate ratio of business growth, based on a statistical interpolation of historical data (2010-2015) according to Telefonica´s strategy. d) Outcomes of the analysis: The analysis established that Telefónica is required to reduce its absolute emissions 30% by 2020 and 50% by 2030 in order to be in line with science, taking 2015 emissions as the baseline year. If we were to achieve these targets, the company would effectively succeed in decoupling growth from GHG emissions. In order to achieve this, we broke down the targets into different measures to be taken with respect to efficiency and renewables: - Reducing energy consumption by 50% per unit of traffic by 2020 through our Energy Efficiency program - Become 100 % renewable by 2030 (and 50% in 2020) The SBTi validated our GHG emissions targets e) This analysis has already influenced our strategy in the following ways: -Integrated Energy and Climate Change Strategy -Ensuring we are taking advantage of internal eco efficiency improvements through our Energy Efficiency Plan, with 131 energy efficiency projects taking place in 2018 -Compliance with ISO14001 for 100% of our business and 50001 for 42% of our business -Board level oversight of the company's sustainability strategy -In 2018, 58% of our electricity came from renewable energy sources -In 2018, we have established Scope 3 reduction targets with the level of ambition required by the SBTi (to be validated). -We have reduced energy consumption by 64% per unit of traffic compared with 2015. f) Monitoring procedures: We will review our objectives regularly in order to ensure our performance is in line with the targets set. Through our mechanism controls we will detect any issues and implement corrective actions. The KPIs used are: KWh/PB; Million € saved in energy OPEX; % renewable energy and CO2 savings. Also, in 2018 we have included our emissions target reduction in the variable bonus of all employees. g) Reporting: Science based targets and the progress made against them will be reported in our annual report on a yearly basis, as well as in the CDP. Our validated targets are publicly available both on our reports and on the SBTi website.
RCP 2.6	In the development of our climate targets, our study used the RCP2.6 pathway with the aim of setting Science Based Targets. i) Methodology, inputs & assumptions: Telefónica reviewed both the RCP2.6 Absolute & Sectorial Decarbonisation Approach (SDA) methodology to assess both the absolute & intensity reductions required to be in line with climate science. We chose to apply the absolute reduction methodology since there is no established SDA methodology for our sector. Hypothesis & assumptions: Our predictive model of emissions considered the energy savings that we will obtain from the EEP (based on Telefonica's historical data), as well as the reduction of emissions derived from the route established in our REP. We also consider an estimated ratio of business growth, based on a statistical interpolation of historical data (2010-2015) according to Telefónica´s strategy. ii) Boundaries & time horizons: Through its commitment, Telefónica aims to decouple business growth from increased emissions. In the analysis of these objectives, the company included the following Scope 1&2 emissions: - Telecommunications services supported by our facilities (Network, Data Centres, Call Centres, Offices, Shops&Company-Owned Vehicles) - Energy Consumption - Refrigerant Gases. In terms of the geographical scope, our analysis covered the businesses in Spain, UK, Germany, Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, México, Panamá, Perú, Uruguay, Venezuela, USA, & our submarine cable landing stations where they are (e.g. Puerto Rico). This means no exclusions took place for the analysis. In terms of time horizons, the evaluation determined SBTs for 2020 & 2030, ultimately based on 2050 projections. These time horizons are aligned with our strategy, since the estimated lifetime of our infrastructures is 20 to 30 years. iii) Results: The analysis established that we required to reduce absolute emissions 50% by 2020 & 70% by 2030, taking 2015 emissions as the baseline year. This represented a significant increase in the ambition required to meet science-based goals, since the previous targets had been aligned to the no-longer-sufficient 2C pathway(30% by 2020, 50% by 2030). If we are to achieve these new targets, the company would effectively succeed in decoupling growth from emissions. iv) This analysis has already influenced our strategy in the following ways: -In 2019, the results made us raise the ambition of our previous 2C aligned targets to align them to 1.5C, increasing our absolute emissions reduction commitments from 30% to 50% by 2020 & from 50% to 70% by 2030. -Development of an integrated Energy & Climate Change Strategy -Ensure we are taking advantage of internal eco efficiency improvements through our EEP, with 189 energy efficiency projects taking place in 2019 -Compliance with ISO14001 for 100% of our business & 50001 for 42% of our business -Board level oversight of the company's sustainability strategy -In 2019, 81.6% of our electricity came from renewable energy sources -In 2019, we have established Scope 3 reduction targets with the level of ambition required by the SBTi, to reduce CO2 emissions in our supply chain by 30% per euro purchased by 2025 compared to 2016 (Scope 3). This target is SBTi validated. v) Case study: In order to achieve the emissions reductions stipulated in the results of our CSA, we broke down the targets into different measures to be taken with respect to efficiency & renewables: - Reduce energy consumption by 85% per unit of traffic by 2025 through our Energy Efficiency program - Become 100% renewable by 2030 (& 85% in 2025). In this regard, Brazil made outstanding progress, achieving 100% renewable in 2019, allowing both the construction of new renewable energy plants countrywide, savings with regard to the market rate & reducing dependence on iREC guarantees of origin. -We have reduced energy consumption by 72% per unit of traffic compared with 2015.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	As described in Opp 1, digitalisation will be a key tool in the management of environmental challenges such as climate change, waste, water, air pollution, fires and biodiversity during the transition to a low carbon economy. According to Smarter 2030, the ICT sector has the potential to reduce 3.6 GtCO2e by 2030, which means it is a very substantive business opportunity for Telefónica in the short and medium term. We want to position ourselves as a key stakeholder in the transition to a green economy and hence we are aligning our business and environmental strategies to find opportunities related to these new types of solutions. Our strategy has been influenced by this, and accordingly our Business Solutions area is developing New Digital Services that have the potential to optimize the consumption of resources of our customers and therefore reduce their impact on the environment. These services, based on Internet of Things (IoT), Cloud and Big Data, are allowing our customers to make more efficient use of resources like electricity, fuels, water, improve traffic planning and the air quality, reduce greenhouse gas emissions and improve responses in the event of fire or climate catastrophe among others benefits. In terms of emissions, thanks to IoT's services for fleet management, building energy, video/audio conferences, cloud services and connectivity to promote teleworking and eliminate the travelling associated with attending meetings on site, we already avoided 3.2 million tonnes of CO2 from being generated by our customers One of the most substantial business decisions made to capitalise on this opportunity, has been the creation of Telefónica Tech in late 2019. This unit was born to further increase the revenues of these new digital services & boost the growth of digital services involving IoT/Big Data, cloud and cybersecurity. This unit brings together the digital businesses with high growth potential and aims to be the partner which supports other companies in their digital transformation. It is expected that this unit will generate more than 2.000 million € of additional revenue by 2022. As our business strategy is committed to the potential of these on these new digital services, in 2019 we set a new ambitious objective Ten To One for 2025: for each tCO2 emitted by Telefónica, we aim to avoid 10 tCO2 into the atmosphere through our services.
Supply chain and/or value chain	Yes	As we have explained in Risk 3 and in the results of our Climate Scenario Analysis, the electricity consumption of our network is high, reaching 2.4% of our OPEX. Therefore, the reduction of our exposure to the risk of the increase of energy prices is a central focus of our business strategy in the short and medium term, and has influenced our business decisions to date. In this regard, we have implemented the following actions: 1) The global operations area (GCTIO) created an Energy Efficiency Plan with the objective of saving €90M in OPEX until 2020. In 2019 we implemented 189 initiatives in our networks and offices, achieving savings of 41.4 M€ in our OPEX, energy reductions of 313 GWh, and prevented over 105 ktCO2e of emissions. We consider this as a medium impact in this business area (Global CTIO). 2) Secondly, within the framework of our Global Supply Chain Sustainability Policy, we are incorporating environmental criteria that should be considered in order to select products or services with a lower impact. In the global purchase area of equipment with high energy consumption, we have incorporated the concept of Total Cost of Ownership (TCO) in the acquisition process, thus considering the amount of energy that the equipment will consume during its use and not just the cost of purchase. The TCO makes it possible for us to reduce the Company's energy expenditure and, therefore, the associated carbon emissions. 3) Finally, the Global Energy and Climate Change Office (CC and EEO), which is composed of company-wide departments such as Operations, Environment and Purchasing, has established our Renewable Energy Plan, that projects a 6% savings on energy OPEX by 2020 and could reach 25% in 2030. The initiatives in 2019 included a second PPA project in Mexico; the acquisition of 100% renewable power in Brazil and Europe, and 6,621 sites self-generating its power. In 2019, all of these actions combined have amounted to 6% of the company's energy OPEX compared against the company's BAU. As a country example, in México the PPA for 40% of the consumption in the country is reaching 30% reduction in electricity costs. We consider this as a medium impact in this business area (Global CTIO).
Investment in R&D	Yes	As described in Opp 1, digital services will be a key tool in the management of environmental challenges such as climate change in the short and medium term whilst the vision of sustainability as a business opportunity that allows us to bet on innovation as a tool for social good remains a long-term strategic line. As a transversal pillar to the internal processes of Core Innovation and Open Innovation (developed from Open Future and Wayra) we invest in initiatives with the goal of improving our customers' mitigation and adaptation capacity to climate change, and that translate into business opportunities. One of the most influential decisions made has been the investment in research and development of new products and services related to climate change: 1) LUCA is our Big Data specialised services unit. Its objective is the development of services to help our customers to take effective decisions, to more efficiently manage resources, and, ultimately, to invest the benefits of this wealth of information in society as a whole. Currently we offer different services based on Big data with a clear positive environmental impact on our customers, such as LUCA Fleet or LUCA Transit. 2) INTERNET FOR ALL: The objective of the project is to provide connectivity in rural and remote areas in order to ensure digital inclusion for all communities. 3) IoT: We develop new services based on IoT that have great potential to improve the use of our customers' resources. Some of the new products developed and launched this year are Smart Energy, Smart Agro or Smart Mining. Smart Energy aims to yield a deep understanding of energy usage in any building or location and to give advice of the actions to be taken. The service provides every required tool for building managers to lower energy consumption and achieve savings. 4) ALPHA ENERGY: The objective of this solution is to bring electricity to the billions of people who are currently living without it - and eventually completely transform the way electricity is distributed. We want to democratize energy and enable people to build their own energy infrastructure from the bottom-up. The approximate investment that these initiatives have meant in 2019 is about 23 million euros.
Operations	Yes	As explained in Risk 3 and in our RCP8.6 CSA, the electricity consumption of our network is high, reaching 6,574,002 MWh, which accounted in average 744 million euros in OPEX. We expect energy prices to increase in the medium- and long-term due to extended drought periods, taxes on energy generated using fossil fuels, etc. This could potentially impact our operations in the medium and most significantly in the long term, In order to reduce our exposure to this risk, we have implemented the following mitigation actions: 1) The global operations area (GCTIO) has created an Energy Efficiency Plan with the objective of saving €90M in OPEX until 2020. In 2019 we implemented 189 initiatives in our networks and offices, achieving savings of 41.4 M€ in our OPEX, energy reductions of 313 GWh, and prevented over 105 ktCO2e. These efforts are reflected in a 72% improvement in our energy intensity ratios (MWh/PB) compared to 2015 and we decoupled the growth of our services from power consumption. 2) GCTIO management have implemented the SUSI platform (Spanish acronym for Unified System of Infrastructure Supervision) in more than 190 of our main buildings in Brazil, Colombia, Argentina, Peru and Chile. This platform enables a centralised and automatic monitoring of a range of critical infrastructure equipment that have a direct influence on the energy consumption of our network. In addition, we have implement this platform in 27 building in Telxius in ten different countries. Apart of these technical buildings, we are monitoring close to 360 base stations in Brazil. With all this, we monitor under SUSI, 10% of total energy consumption in Telefónica. 3) Another way of minimising the impact of Network deployment is to share infrastructures. Therefore, whenever possible, we share our facilities with other operators or communication tower management companies. In this way, we reduce square footage, visual impact, energy consumption and waste generation. In 2019, the number of base stations we shared rose to more than 55,000. These efforts are reflected in a 72% improvement in our energy intensity ratios (MWh/PB) compared to 2015 and we decoupled the growth of our services from power consumption.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Access to capital	As part of our Climate Change Strategy 2015-2050, Telefonica commits to reduce scope 1 and 2 emissions 50% by 2025, and 70% by 2030 & achieve net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050. Whilst this will have an impact in all the financial elements selected, we want to draw attention to what opportunities the transition towards a low carbon economy represents for both internal energy management (i) & business growth (ii): i. REP & the EEP enable us to reduce our operating costs. This is important since our energy expenditure makes up around 1.7% of our revenue. Hence, managing the risk of growing energy prices is a central focus of our business strategy&has influenced our business decisions to date in the short & medium term. ii. Digital services, i.e. IoT-based, necessary for the decarbonisation of the economy. In 2019 revenues coming from new digital services increased 30% compared to 2018, which represents an increase of 17.1% of our income from these new digital services. We consider this as a medium impact at a company level. CC has also impacted our financial planning & capital allocation. Based on the results of our Vulnerability Assessment, we allocate part of our CAPEX to the purchase of equipment resistant to greater Tª ranges, lower energy consumption & implementation of EE projects. An example of how we have modified our financial planning is the incorporation of the Total Cost of Ownership criteria in the purchasing process of energy intensive equipment, considering the amount of energy that the equipment will consume during its use & not just the cost of purchase. Under the latest EEP, the CAPEX involved amounted to >25M€, implementing 189 initiatives leading to savings of 313GWh & prevented over 105ktCO2e, with savings of 20.5M€ in our OPEX. We consider this as a medium impact at a company level. Additionally, Telefónica needs to secure access to capital. The company issued the 1st Green Bond of the telco sector in early 2019 for an amount of 1,000M€ & a 5-yr term, & it was invested in by more than 310 investors. The funds obtained will be used to finance projects to increase our energy efficiency, transforming our copper network into fibre optic in Spain (85% more energy efficient). The target is to have 100% of retail customers in fibre before 2025 (short term).This financing enables us to diversify our portfolio, effectively accessing a wider variety of investors

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

Our Energy and Climate Change strategy, aligned with the business model, allows us to cover every aspect of this global phenomenon; we take on mitigation, leverage opportunities and adapt managing risks. At Telefónica, we are committed to reducing our own carbon footprint, and, more significantly, we deliver solutions to reduce our customers' emissions. Given its transversal and global nature, climate change is currently integrated in the management of the core aspects of the Company, such as governance, strategy, risks, targets and financial planning. We implement the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) to meet the demands of our main stakeholders and the transparency required in this area.

Our global Risk Management Model allows us to analyse specifically our exposure to the potential risks and opportunities arising from the impact of projected climate effects in different scenarios of CO2 equivalent concentration in the atmosphere and over different periods, following the TCFD recommendations. This analysis enables us to incorporate climate change into long-term business decisions, minimising risks and maximising opportunities for our business. Moreover, our Environmental strategy is the responsibility of the Board of Directors, which approves the global environmental policy and targets, within the framework of our Responsible Business Plan. One of the key metrics used to integrate climate change into the financial planning is the inclusion of carbon emissions reduction targets are part of the variable remuneration of all the Company's employees, including the Board of Directors. All of the above evidences that environment has become an strategic issue for the Company.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2015

Covered emissions in base year (metric tons CO2e)

1912188

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2025

Targeted reduction from base year (%)

50

Covered emissions in target year (metric tons CO2e) [auto-calculated]

956094

Covered emissions in reporting year (metric tons CO2e)

962946

% of target achieved [auto-calculated]

99.2833340654789

Target status in reporting year

Underway

Is this a science-based target?

Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)

In 2018,we met two years ahead of schedule the targets we had set for 2020. Because of this and the necessary increase in ambition requested by the scientific world, led us to announce in 2019 new energy and climate change targets up to 2025, 2030 and 2050. These targets are aligned with the 1.5ºC scenario and validated by the Science Based Targets Initiative (SBTi). These objectives are part of our Climate Change strategy, which aims to decouple the growth of our business from energy consumption and GHG emissions. With this purpose, we have defined a path of emission reduction until 2050, establishing milestones of emission reduction: Reduce our Scope 1 and 2 emissions by 50% in absolute terms by 2025, 70% by 2030 and achieving net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050. In 2019 Telefónica reduced its total Scope 1 and 2 emissions in 49.6% compared with our base year 2015. This has been possible thanks to the actions within our Energy Efficiency Plan and our Renewable Energy Plan. - Our Energy Efficiency Plan enables Telefónica to decouple its business growth from energy consumption, so that

in 2019 we achieved 71.8% improvement of our energy-intensive ratios (MWh/Traffic PB) - Under the Renewable Energy Plan in 2019 we achieved a renewable-sourced electricity consumption of 81.6% at a global level. Despite the challenges for buying renewable electricity is some of the countries we operate, mainly in Latin America, where there is not a renewable energy attributes scheme, and it is also not possible to have a contract directly with a renewable energy generator, in 2019 there was a tremendous opportunity that led to a dramatic and unexpected increase in renewable electricity consumption in 2 of our operations: Colombia and Peru, thanks to the implementation of different renewable energy attributes schemes. This allowed us to increase the RE consumption, just in one year, from 0.15% to 43% in Colombia, and from 1.3% to 34% in Peru. This evolution led us to a renewable electricity increase at Group level, from 59.2% in 2018 to 81.6% in 2019, and 18% reduction of CO2 emissions in one year, and 49,6% since 2015 (base year). These efforts translate into a reduction in our carbon footprint of 2.708.897 tCO2e since 2015.

Target reference number
Abs 2

Year target was set
2019

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Base year
2015

Covered emissions in base year (metric tons CO2e)
1912188

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2030

Targeted reduction from base year (%)
70

Covered emissions in target year (metric tons CO2e) [auto-calculated]
573656.4

Covered emissions in reporting year (metric tons CO2e)
962946

% of target achieved [auto-calculated]
70.9166671896278

Target status in reporting year
Underway

Is this a science-based target?
Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
In 2018, we met two years ahead of schedule, the targets we had set for 2020. Because of this and the necessary increase in ambition requested by the scientific world, led us to announce in 2019 new energy and climate change targets up to 2025, 2030 and 2050 during COP25. These targets are aligned with the 1.5ºC scenario and validated by the Science Based Targets Initiative (SBTi). These objectives are part of our Climate Change strategy, which aims to decouple the growth of our business from energy consumption and GHG emissions. With this purpose, we have defined a path of emission reduction until 2050, establishing milestones of emission reduction: Reduce our Scope 1 and 2 emissions by 50% in absolute terms by 2025, 70% by 2030 and achieving net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050. In 2019 Telefónica reduced its total Scope 1 and 2 emissions in 49.6% compared with our base year 2015. This has been possible thanks to the actions within our Energy Efficiency Plan and our Renewable Energy Plan. - Our Energy Efficiency Plan enables Telefónica to decouple its business growth from energy consumption, so that in 2019 we achieved 71.8% improvement of our energy-intensive ratios (MWh/Traffic PB) - Under the Renewable Energy Plan in 2019 we achieved a renewable-sourced electricity consumption of 81.6% at a global level. These efforts translate into a reduction in our carbon footprint of 2.708.897 tCO2e since 2015.

Target reference number
Abs 3

Year target was set
2019

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Base year
2015

Covered emissions in base year (metric tons CO2e)
1912188

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2050

Targeted reduction from base year (%)
100

Covered emissions in target year (metric tons CO2e) [auto-calculated]
0

Covered emissions in reporting year (metric tons CO2e)
962946

% of target achieved [auto-calculated]
49.6416670327395

Target status in reporting year
Underway

Is this a science-based target?
Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
In 2018, we met two years ahead of schedule, the targets we had set for 2020. Because of this and the necessary increase in ambition requested by the scientific world, led us to announce in 2019 new energy and climate change targets up to 2025, 2030 and 2050 during COP25. These targets are aligned with the 1.5ºC scenario and validated by the Science Based Targets Initiative (SBTi). These objectives are part of our Climate Change strategy, which aims to decouple the growth of our business from energy consumption and GHG emissions. With this purpose, we have defined a path of emission reduction until 2050, establishing milestones of emission reduction: Reduce our Scope 1 and 2 emissions by 50% in absolute terms by 2025, 70% by 2030 and achieving net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050. In 2019 Telefónica reduced its total Scope 1 and 2 emissions in 49.6% compared with our base year 2015. This has been possible thanks to the actions within our Energy Efficiency Plan and our Renewable Energy Plan. - Our Energy Efficiency Plan enables Telefónica to decouple its business growth from energy consumption, so that in 2019 we achieved 71.8% improvement of our energy-intensive ratios (MWh/Traffic PB) - Under the Renewable Energy Plan in 2019 we achieved a renewable-sourced electricity consumption of 81.6% at a global level. These efforts translate into a reduction in our carbon footprint of 2.708.897 tCO2e since 2015.

Target reference number
Abs 4

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Base year
2016

Covered emissions in base year (metric tons CO2e)
271866

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2025

Targeted reduction from base year (%)
25

Covered emissions in target year (metric tons CO2e) [auto-calculated]
203899.5

Covered emissions in reporting year (metric tons CO2e)
164563

% of target achieved [auto-calculated]
157.876306709923

Target status in reporting year
Achieved

Is this a science-based target?
Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
We calculate and reduce our carbon footprint every year, including direct emissions (Scope 1) from fuel consumption and fugitive emissions of refrigerant gases and indirect emissions from electricity consumption (Scope 2), and other indirect emissions related to our value chain (Scope 3). Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Fuel-and-energy-related activities is one of the most important categories, representing 7.7% of our scope 3 emissions. Our objective is to reduce 25% emissions associated with the energy life cycle (category 3 of Scope 3). In 2019 we have achieved a 100% reduction of this target respect to 2016 (our base year), this has been possible thanks to the actions within our Energy Efficiency Plan and our Renewable Energy Plan: - Our Energy Efficiency Plan enables Telefónica to decouple its business growth from energy consumption, so that in 2019 we achieved 71.8% improvement of our energy-intensive ratios (MWh/Traffic PB) - Under the Renewable Energy Plan in 2019 we achieved a renewable-sourced electricity consumption of 81.6% at a global level. This has been possible due to the renewable electricity purchased in some operations such as Brazil, reaching 100% renewable electricity consumption, Peru and Colombia, with 34% and 43.3% respectively. This has allowed the target for the Fuel-and-energy-related activities to be reached earlier than planned. In 2020 we are reviewing the decarbonisation path to set a new milestone for 2020 This evolution led us to a renewable electricity increase at Group level, from 59.2% in 2018 to 81.6% in 2019, and 18% reduction of CO2 emissions in one year, and 49,6% since 2015 (base year).

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 3: Purchased goods & services

Intensity metric
Other, please specify (kilogram of CO2e per Euro (€) purchased)

Base year
2016

Intensity figure in base year (metric tons CO2e per unit of activity)
1636093

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
100

Target year
2025

Targeted reduction from base year (%)
30

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
1145265.1

% change anticipated in absolute Scope 1+2 emissions
0

% change anticipated in absolute Scope 3 emissions
30

Intensity figure in reporting year (metric tons CO2e per unit of activity)
1257083

% of target achieved [auto-calculated]
77.2185118246131

Target status in reporting year
Underway

Is this a science-based target?
Yes, this target has been approved as science-based by the Science Based Targets initiative

Please explain (including target coverage)
This emission reduction target applies to category 1 (Purchased goods & services) and 2 (Capital Goods) of our Scope 3, since the emission method of calculation we use is the same based on the information of purchases and the acquisition of capital goods. Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Purchased goods and services and Capital Goods, are two of the most important categories, representing 59% of our scope 3 emissions. Our objective is to reduce 30% emissions per unit of product purchased between 2016 and 2025 (categories 1&2 of Scope 3). Telefónica is firmly committed to an open, collaborative relationship with its suppliers. Our commitment to them is based on establishing relations which enable us to jointly have a positive impact on our surroundings, through close collaboration and the sharing of good practices, fostered thanks to different initiatives with our suppliers, as the participation in ECOVADIS or JAC (Joint Audit Cooperation). In this sense we work on the management of emissions in the supply chain, both globally and at local level, e.g. in the UK, Telefónica has been recertified to the Carbon Trust Standard for Supply Chain at level 3, the highest possible level. The standard is the world's first independent certification for recognising organisations that are measuring, managing and reducing GHG emissions within their supply chains, demonstrating leadership in their industry by making real progress year-on-year. Globallu, in 2019 we continued our supplier engagement programme about climate change with our key suppliers. we gathered information from our suppliers to understand the maturity level of their climate strategies and help them set more ambitious emission reduction targets, to inspire them to take action and offered them a best practices forum to foster innovation and an exchange of practices. The suppliers included in this programme represent 68% of the emissions from our supply chain and 39% of our total Scope 3 emissions. These work with suppliers has allowed us to achieve 24% of absolute reduction of the emission per euro purchased with respect to 2016.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to increase low-carbon energy consumption or production
Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)
<Not Applicable>

Base year
2015

Figure or percentage in base year
20.83

Target year
2025

Figure or percentage in target year
85

Figure or percentage in reporting year
81.6

% of target achieved [auto-calculated]
94.7015739442107

Target status in reporting year
Underway

Is this target part of an emissions target?
Our renewable electricity target is one of the key levers to achieve our targets for reducing emissions covered Abs 1, Abs 2 and Abs 3. In 2019, the Renewable Energy Plan has allowed us to reduce our Scope 2 emissions by the equivalent of 198.4 thousand tons of CO2 compared to last year, and shows that renewable energies are the key to achieving the decarbonisation of our operations and to reducing our carbon footprint in absolute terms.

Is this target part of an overarching initiative?
RE100

Please explain (including target coverage)
Telefónica´s Climate Change strategy aims to decouple our business growth from energy consumption and GHG emissions. Through our Energy Efficiency Plan and our Renewable Energy Plan, we are managing to reduce energy expenditure while reducing our carbon emissions in absolute terms. These are the 3 global objectives within our strategy: - More renewable energy: using 85% of electricity from renewable sources by 2025 and 100% by 2030. - More energy efficiency: reduce energy consumption per traffic unit (MWh/PB) by 85% in 2025 compared to 2015. - Decrease CO2 emissions: reduce emission by 50% by 2025 and by 70% by 2030, compared to 2015, and achieving net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050. These are Telefónica´s global objectives, therefore apply to all our business lines in all the countries where we are present. Our Renewable Energy Plan considers all kind of solutions to achieve the 100% renewable objective: self-generation, purchasing renewable energy with guarantees of origin, and long-term purchase agreements (Power Purchase Agreement – PPA). It foresees potential OPEX savings of 6% by 2020, with the possibility to reach 25% by 2030. As a result of the various strategies established in our Renewable Energy Plan, in 2019 we achieved a renewable-sourced electricity consumption of 81.6%.

Target reference number
Low 2

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)
<Not Applicable>

Base year
2015

Figure or percentage in base year
20.83

Target year
2030

Figure or percentage in target year
100

Figure or percentage in reporting year
81.6

% of target achieved [auto-calculated]
76.7588733105974

Target status in reporting year
Underway

Is this target part of an emissions target?
Our renewable electricity target is one of the key levers to achieve our targets for reducing emissions covered Abs 1, Abs 2 and Abs 3. In 2019, the Renewable Energy Plan has allowed us to reduce our Scope 2 emissions by the equivalent of 198.4 thousand tons of CO2 compared to last year, and shows that renewable energies are the key to achieving the decarbonisation of our operations and to reducing our carbon footprint in absolute terms.

Is this target part of an overarching initiative?
RE100

Please explain (including target coverage)
Telefónica´s Climate Change strategy aims to decouple our business growth from energy consumption and GHG emissions. Through our Energy Efficiency Plan and our Renewable Energy Plan, we are managing to reduce energy expenditure while reducing our carbon emissions in absolute terms. These are the 3 global objectives within our strategy: - More renewable energy: using 85% of electricity from renewable sources by 2025 and 100% by 2030. - More energy efficiency: reduce energy consumption per traffic unit (MWh/PB) by 85% in 2025 compared to 2015. - Decrease CO2 emissions: reduce emission by 50% by 2025 and by 70% by 2030, compared to 2015, and achieving net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050. These are Telefónica´s global objectives, therefore apply to all our business lines in all the countries where we are present. Our Renewable Energy Plan considers all kind of solutions to achieve the 100% renewable objective: self-generation, purchasing renewable energy with guarantees of origin, and long-term purchase agreements (Power Purchase Agreement – PPA). It foresees potential OPEX savings of 6% by 2020, with the possibility to reach 25% by 2030. As a result of the various strategies established in our Renewable Energy Plan, in 2019 we achieved a renewable-sourced electricity consumption of 81.6%.

Target reference number
Low 3

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Intensity

Target type: energy carrier
All energy carriers

Target type: activity
Consumption

Target type: energy source
Low-carbon energy source(s)

Metric (target numerator if reporting an intensity target)
MWh

Target denominator (intensity targets only)
Other, please specify (Petabytes of data traffic (PB))

Base year
2015

Figure or percentage in base year
409

Target year
2025

Figure or percentage in target year
102

Figure or percentage in reporting year
115

% of target achieved [auto-calculated]
95.7654723127036

Target status in reporting year
Underway

Is this target part of an emissions target?
Our energy intensity target is also related with our emissions goals: Abs 1, Abs 2 and Abs 3. In 2010 we established an Energy Efficiency Plan to optimise the energy

consumption of our Network. Since then we have launched 863 projects, achieving savings of more than 602 million euros on energy OPEX, avoiding 1.6 million tCO2 and savings of 5200 GWh . Under this framework, in 2019 we carried out 189 initiatives in our networks and offices. As a result of these, we reduced energy consumption by 313 GWh, and avoided more than 105 ktCO2e. These efforts are reflected in a 72% improvement in our energy intensity ratios (MWh/PB) compared to 2015. The objective of these projects is to increase our network efficiency, e.g by replacing copper by fibre optic; shutting down legacy networks&reducing fuel consumption by implementing hybrid stations.

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
Telefónica´s Climate Change strategy aims to decouple our business growth from energy consumption and GHG emissions. Through energy efficiency and renewable energy, we are managing to reduce energy expenditure while reducing our carbon emissions in absolute terms. In 2018, we met two years ahead of schedule, the targets we had set for 2020. Because of this and the necessary increase in ambition requested by the scientific world, led us to announce in 2019 new energy and climate change targets up to 2025, 2030 and 2050 during COP25. These are the 3 global objectives within our strategy: - More renewable energy: using 85% of electricity from renewable sources by 2025 and 100% by 2030. - More energy efficiency: reduce energy consumption per traffic unit (MWh/PB) by 85% in 2025 compared to 2015. - Decrease CO2 emissions: reduce emission by 50% by 2025 and by 70% by 2030, compared to 2015, and achieving net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2030, and globally by 2050. These are Telefónica´s global objectives, therefore apply to all our business lines in all the countries where we are present.

Target reference number
Low 4

Year target was set
2018

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: energy carrier
Other, please specify (Avoided emissions through our services)

Target type: activity
Production

Target type: energy source
Low-carbon energy source(s)

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)
<Not Applicable>

Base year
2017

Figure or percentage in base year
0.67

Target year
2025

Figure or percentage in target year
10

Figure or percentage in reporting year
3.3

% of target achieved [auto-calculated]
28.1886387995713

Target status in reporting year
Underway

Is this target part of an emissions target?
Our energy intensity target is also related with our emissions goals: Abs 1, Abs 2 and Abs 3. On the numerator of this objective: we want to increase the emissions avoided by the growth in sales of our connectivity and digital services. On the denominator side, we want to reduce our Scope 1 and Scope 2 Market emissions (as we have explained in our emissions goals: Abs 1, Abs 2 and Abs 3) thanks to the decarbonisation of our activity through our Renewable Energy Plan and the Energy Efficiency Plan

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
Digitalization is expected to be essential to address the transition to a low carbon economy. Our connectivity and new Digital Services have a great potential to reduce emissions in other sectors of the economy. As our business strategy is committed to the potential of these new digital services, in the previous year we have set the objective Ten To One for 2025, to generate a greater positive impact: for each ton of CO2 emitted by Telefónica (scope 1 and scope 2 market), we aim to avoid 10 tons of CO2 into the atmosphere through our services. With the aim of measuring the positive impact of the services provided by Telefónica, in 2019 we increased the volume of services we use to calculate avoided emissions. This information enables us to continue working on those developments which have the most positive effect on reducing emissions. Thanks to IoT's services for fleet management, building energy, video/audio conferences, cloud services and connectivity to promote teleworking and eliminate the travelling associated with attending meetings on site, we avoided 3.2 million tonnes of CO2 from being generated by our customers. The appraised evaluated avoided 3.3 times the emissions we generated; that means for each tonne of Telefónica's emissions in its activity we were able to avoid 3.3 tonnes in our clients' emissions. Therefore, the difference between generated (0.96 MtCO2eq) and avoided (3.3 MtCO2eq) emissions, results in a net positive impact on the planet of 2.2 MtCO2eq.

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number
Oth 1

Year target was set
2018

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Other, please specify	Other, please specify (Avoided emissions through our services)

Target denominator (intensity targets only)
<Not Applicable>

Base year
2017

Figure or percentage in base year
0.67

Target year
2025

Figure or percentage in target year
10

Figure or percentage in reporting year
3.3

% of target achieved [auto-calculated]
28.1886387995713

Target status in reporting year
Underway

Is this target part of an emissions target?
Our energy intensity target is also related with our emissions goals: Abs 1, Abs 2 and Abs 3. On the numerator of this objective: we want to increase the emissions avoided by the growth in sales of our connectivity and digital services. On the denominator side, we want to reduce our Scope 1 and Scope 2 Market emissions (as we have explained in our emissions goals: Abs 1, Abs 2 and Abs 3) thanks to the decarbonisation of our activity through our Renewable Energy Plan and the Energy Efficiency Plan

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
Digitalization is expected to be essential to address the transition to a low carbon economy. Our connectivity and new Digital Services have a great potential to reduce emissions in other sectors of the economy. As our business strategy is committed to the potential of these new digital services, in the previous year we have set the objective Ten To One for 2025, to generate a greater positive impact: for each ton of CO2 emitted by Telefónica (scope 1 and scope 2 market), we aim to avoid 10 tons of CO2 into the atmosphere through our services. With the aim of measuring the positive impact of the services provided by Telefónica, in 2019 we increased the volume of services we use to calculate avoided emissions. This information enables us to continue working on those developments which have the most positive effect on reducing emissions. Thanks to IoT's services for fleet management, building energy, video/audio conferences, cloud services and connectivity to promote teleworking and eliminate the travelling associated with attending meetings on site, we avoided 3.2 million tonnes of CO2 from being generated by our customers. The appraised evaluated avoided 3.3 times the emissions we generated; that means for each tonne of Telefónica's emissions in its activity we were able to avoid 3.3 tonnes in our clients' emissions. Therefore, the difference between generated (0.96 MtCO2eq) and avoided (3.3 MtCO2eq) emissions, results in a net positive impact on the planet of 2.2 MtCO2eq.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*	120	265209
Implementation commenced*	74	38557
Implemented*	190	213710
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Fugitive emissions reductions	Refrigerant leakage reduction

Estimated annual CO2e savings (metric tonnes CO2e)
1269

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1010000

Investment required (unit currency – as specified in C0.4)
1010657

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Title: Cooling Description: Old refrigeration equipment has been replaced with new, more efficient equipment which uses refrigerant gases with lower GWP. This allows us to reduce the leakage of refrigerant gases in our operations and also reduce our maintenance costs.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
14048

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
7350000

Investment required (unit currency – as specified in C0.4)
3045153

Payback period
<1 year

Estimated lifetime of the initiative
<1 year

Comment

Initiative category & Initiative type

Low-carbon energy consumption	Other, please specify (Renewable energy purchase)

Estimated annual CO2e savings (metric tonnes CO2e)
198393

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
7237908

Investment required (unit currency – as specified in C0.4)
1444227

Payback period
<1 year

Estimated lifetime of the initiative
1-2 years

Comment
Title: renewable energy purchase. Description: In 2016 we established the Telefónica Renewable Energy Plan. As a result, in 2019, 81.6% of our electricity consumption is renewable sourced. Besides the countries where we bought renewable energy (Grmany, the UK, Spain, Brazil and Mexico), in the last year we bought renewable energy in Colombia and Perú.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	To reduce the carbon footprint, reduce operational costs and provide services at attractive prices, Telefónica assesses, defines and implements projects with CAPEX dedicated for energy efficiency (since financial indicators suggest that the project is attractive). Examples of indicators that we use: - The Net Present Value (NPV), that determine when an investment complies with the basic financial objective of maximizing the investment. If the NPV is positive it means that the project is viable. -Payback: this is a KPI for the company gets an idea of the time it takes to recover the payment on an investment.
Financial optimization calculations	In 2019 Telefónica managed to implement seven projects under a new disruptive business model called Energy Savings as a Service (ESaaS); this totally changes the way we optimise our infrastructure and is based on an agreement with a specialised supplier who designs the solution, invests, operates, maintains and ensures savings. The actions encompass a number of different initiatives and the service is paid for by sharing the savings generated thanks to the measures implemented.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation
Group of products

Description of product/Group of products
DIGITAL SERVICES: Under this group we include services based on on IoT, Cloud and Big Data, different digital workplace solutions or the connectivity use to promote teleworking. These services enable our clients to more efficiently use resources such as energy and water, improve traffic planning, air quality, to reduce GHG emissions, etc. Thanks to IoT services for fleet management, building energy, video/audio conferences, cloud services and connectivity to promote teleworking and eliminate the travelling associated with attending meetings on site, in 2019 we avoided 3.2 million tCO2 in our clients, which means that our services avoided 3.3 times the emissions that we generated (scopes 1&2), that is, for each ton that Telefónica emits in its activity we are able to avoid 3.3 tons in our customers. IoT: 2019 ended with more than 24 million IoT lines in our clients and an increase of 55% of revenues. For us, IoT has become one of the main areas for investment for the development of new services, because it offers an enormous potential to promote a circular and decarbonized economy. CONNECTIVITY SERVICES: Telecommuting, Video/Audio-conferencing The provision of broadband connections enables Telefónica to facilitate employees to work from their home instead of traveling into their usual place of work. This reduces the need for the employee to commute into the office. Also, Telefónica's network and development of technology enables businesses to hold meetings over video and audio calls instead of traveling for the meeting. Telefónica provide both PABX (Private Automatic Branch Exchange) telephone services, as well as video conferencing facilities HOSTING &CLOUD: As a result of our hosting services at Data Centers, we have managed to dematerialise contents and services, thereby reducing energy consumption and greatly optimising space usage. This all contributes to reducing our customers' carbon footprint significantly. BIG DATA: Through analysis of movement patterns traced by mobile phone use, combined with other open data we offer our customers different services. An example is LUCA Transit, a service designed to optimize the planning of public transport systems that allows to reduce of GHG emissions and the atmospheric pollution in cities.

Are these low-carbon product(s) or do they enable avoided emissions?
Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Evaluating the carbon-reducing impacts of ICT

% revenue from low carbon product(s) in the reporting year
16

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
297042

Comment
Telefónica calculates and verifies its emissions according to the GHG Protocol and ISO 14064 standard. 2015 RECALCULATION In 2019, Scope 1 and 2 have been recalculated for 2015, 2016, 2017 and 2018, as Mobile operations in Central America (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama) have been excluded from the reporting perimeter. The reason for the exclusion of these companies is due to the sale of these operations during 2019. 2015 is our base year for GHG targets, so we need always to recalculate from the base year onward.

Scope 2 (location-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
2066340

Comment
Telefónica calculates and verifies its emissions according to the GHG Protocol and ISO 14064 standard. 2015 RECALCULATION In 2019, Scope 1 and 2 have been recalculated for 2015, 2016, 2017 and 2018, as Mobile operations in Central America (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama) have been excluded from the reporting perimeter. The reason for the exclusion of these companies is due to the sale of these operations during 2019. 2015 is our base year for GHG targets, so we need always to recalculate from the base year onward.

Scope 2 (market-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
1615146

Comment
Telefónica calculates and verifies its emissions according to the GHG Protocol and ISO 14064 standard. 2015 RECALCULATION In 2019, Scope 1 and 2 have been recalculated for 2015, 2016, 2017 and 2018, as Mobile operations in Central America (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama) have been excluded from the reporting perimeter. The reason for the exclusion of these companies is due to the sale of these operations during 2019. 2015 is our base year for GHG targets, so we need always to recalculate from the base year onward.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
237620

Start date
January 1 2019

End date
December 31 2019

Comment
Our Scope 1 emissions come from two main sources: fuel consumption of our fleet and power generators, and the fugitive emissions from refrigerant gases used in air-conditioning units in our network.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
252937

Start date
January 1 2018

End date
December 31 2018

Comment
2018 RECALCULATION In 2019, Scope 1 and 2 have been recalculated for 2015 (base year), 2016, 2017 and 2018, as Mobile operations in Central America (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama) have been excluded from the reporting perimeter. The reason for the exclusion of these companies is due to the sale of these operations during 2019.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
295622

Start date
January 1 2017

End date
December 31 2017

Comment
2017 RECALCULATION In 2019, Scope 1 and 2 have been recalculated for 2015 (base year), 2016, 2017 and 2018, as Mobile operations in Central America (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama) have been excluded from the reporting perimeter. The reason for the exclusion of these companies is due to the sale of these operations during 2019.

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)
291787

Start date
January 1 2016

End date
December 31 2016

Comment
2016 RECALCULATION In 2019, Scope 1 and 2 have been recalculated for 2015 (base year), 2016, 2017 and 2018, as Mobile operations in Central America (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama) have been excluded from the reporting perimeter. The reason for the exclusion of these companies is due to the sale of these operations during 2019.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

Scope 2 Market-based has important implications in countries where we buy renewable energy, In Telefónica Germany, Spain, UK and Brazil, where renewable energy is purchased from electricity suppliers, 100% of the electricity we use in our network comes from non-renewable sources. Since 2019, Telefónica Colombia and Telefónica Perú, are 43% and 34% renewable respectively. In 2016 we established the Telefónica Renewable Energy Plan, with the goal of consuming 85% of electric energy from renewable sources by 2025 and 100% by 2030. As a result in 2019, 81.7% of our electricity consumption is renewable sourced. This, added to our energy efficiency projects, has allowed us to reduce our Scope 2 emissions by 198.393 tonnes of CO2 equivalent. In this plan we wanted to prioritize the European countries (UK, Germany and Spain) and Brazil which represent a high percentage of the total energy consumption of Telefónica. In these countries, with the existence of liberalized electricity markets (total or partial, in Brazil case), it is possible to consume renewable energy through the purchase of energy with guarantees of origin, or bilateral agreements. Since 2019, Telefónica Colombia and Telefónica Perú, are 43% and 34% renewable respectively. In the coming years, our objectives are more moderate because in many of the Latin American countries the option to acquire renewable electricity with a guarantees of origin does not yet exist, and we will have to look for other solutions such as implementing long-term power purchase agreements (PPAs), shorter bilateral agreements and /or self-generation. In 2018 the largest solar park in Mexico started supplying energy to our operations in this country, thanks to a PPA signed between Telefónica and the solar power generation company, owner of the solar park. This solar park is already supplying 40% of the power consumed by Telefónica Mexico, and will continue over the next 20 years. In 2019, a second PPA began supplying our operation in Mexico, in this case with energy from a wind farm. Regarding self-generation, we gradually increased the base stations of the mobile network that run on renewable energy, and we now have 6,621 sites. In summary, in 2019, 4,637 GWh came from renewable energy sources. This has enabled us to avoid the emission of around 1 million tonnes of CO2 equivalent.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
1650417

Scope 2, market-based (if applicable)
725326

Start date
January 1 2019

End date
December 31 2019

Comment
Scope 2 emissions, from power consumption, are the most significant in our business.

Past year 1

Scope 2, location-based
1836464

Scope 2, market-based (if applicable)
923719

Start date
January 1 2018

End date
December 31 2018

Comment
2018 RECALCULATION In 2019, Scope 1 and 2 have been recalculated for 2015 (base year), 2016, 2017 and 2018, as Mobile operations in Central America (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama) have been excluded from the reporting perimeter. The reason for the exclusion of these companies is due to the sale of these operations during 2019.

Past year 2

Scope 2, location-based
1759281

Scope 2, market-based (if applicable)
1059796

Start date
January 1 2017

End date
December 31 2017

Comment
2017 RECALCULATION In 2019, Scope 1 and 2 have been recalculated for 2015 (base year), 2016, 2017 and 2018, as Mobile operations in Central America (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama) have been excluded from the reporting perimeter. The reason for the exclusion of these companies is due to the sale of these operations during 2019.

Past year 3

Scope 2, location-based
1907661

Scope 2, market-based (if applicable)
1153046

Start date
January 1 2016

End date
December 31 2016

Comment
2016 RECALCULATION In 2019, Scope 1 and 2 have been recalculated for 2015 (base year), 2016, 2017 and 2018, as Mobile operations in Central America (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama) have been excluded from the reporting perimeter. The reason for the exclusion of these companies is due to the sale of these operations during 2019.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Metric tonnes CO2e
1122268

Emissions calculation methodology
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Purchased goods and services is one of the most important categories, representing around 53% of our scope 3 emissions. In the perimeter of this category we include 100% of the total purchase volume of Telefónica, covering all the products lines of Telefónica Corporate Procurement Department: Services&Works, Market Products, Information systems, Advertising and Marketing and Mobility. The following purchasing categories are not accounted as Purchased goods and services to avoid double accounting: Network Infrastructure procurement (accounted in Scope 3 Cat 2) Energy procurement (accounted in Scope 3 Cat 3), Business travel (accounted in scope 3 Cat 6). For this category emissions are calculated using a hybrid approach, using product emissions from Life Cycle Assessment (LCA) studies for purchased products (cradle to gate emissions) where it is available. When LCA it is not available we calculate the proportion of the reported suppliers' scope 1 and 2 emissions that correspond to Telefónica's spend with those suppliers.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
70

Please explain

Capital goods

Evaluation status
Relevant, calculated

Metric tonnes CO2e
134815

Emissions calculation methodology
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Capital Goods is one of the most important categories, representing 6,3% of our scope 3 emissions. In the perimeter of this category we include the 100% of the acquisition volume of products classified by the Telefónica Corporate Procurement Department as: Network Infrastructure. In this category emissions are calculated using a hybrid approach, using product emissions from Life Cycle Assessment (LCA) studies for purchased products (cradle to gate emissions) where it is available. When LCA it is not available we calculate the proportion of the reported suppliers' scope 1 and emissions that correspond to Telefónica's spend with those suppliers.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
48

Please explain

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Metric tonnes CO2e
164563

Emissions calculation methodology
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Fuel-and-energy-related activities is one of the most important categories, representing 7.7% of our scope 3 emissions. In the perimeter of this category we include the 100% of the Energy Consumption of Telefónica. In this category we consider: a) Upstream emissions of purchased fuels b) Upstream emissions of electricity c) Transmission and distribution losses Upstream fuel and energy emissions are calculated by applying the relevant emission factors to the fuel and energy consumption data used in the scope 1 & 2 calculations. For this we use DEFRA´s Well-to-tank (WTT) emission factor.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
80

Please explain

Upstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
These emissions have already been included in categories 1 and 2 of our scope 3

Waste generated in operations

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Waste generated in operations emissions came from the disposal and treatment of waste generated as part of Telefónica Group´s operations. We carried out an estimation of these emissions by applying emission factors to the waste volumes generated by Telefónica and the results showed that this category is not relevant in terms of total emissions (less than 5%)

Business travel

Evaluation status
Not relevant, calculated

Metric tonnes CO2e
65538

Emissions calculation methodology
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Business travel is not one of the most important categories, as it only represents 3.1% of our scope 3 emissions. However, for years we have been implementing plans and actions to reduce emissions in this category, so we consider it relevant to include it in the total of our scope 3 In this category we consider all different modes of travel (air, car, taxi, bus and train) as follows: Air - emission factors applied to distance travelled for different categories (short haul, long haul,). Emission factors used are from Defra and include radiative forcing. Bus – distance travelled by bus was calculated using a typical annual distance per employee, multiplied by the number of employees who travel for business. Total distance was then converted to emissions using the emission factor for an average local bus. Train – distance travelled by train was calculated using a typical annual distance per employee, multiplied by the number of employees who travel for business. Total distance was then converted to emissions using the emission factor for national rail.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain

Employee commuting

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. These emissions stem from Telefónica’s employees’ travel between home and work during the reporting period. These trips are made in vehicles not owned or controlled by Telefónica. We carried out an assessment of these emissions in one of the countries in Telefónica and it is not relevant in terms of total emissions. (less than 5%).

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Telefónica leases space for network infrastructure sharing, but we have the operational control of the energy bill, so the emissions arising from electricity consumption at those sites have already been included in Scope 2.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
These emissions have already been included in categories 1 and 2 of our scope 3

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This category is not applicable to Telefónica Group. Typically, Telefónica Group does not manufacture products and does not sell intermediate products, therefore there are no emissions from further downstream processing of products.

Use of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
637096

Emissions calculation methodology
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Use of Sold Products is one of the most important categories, representing 30% of our scope 3 emissions. In the perimeter of this category we include the end use of goods and services sold in the reporting year (mobile phone handsets and other devices sold), as well as those installed in customers´ premises (such as routers, set-top boxes, etc). For this category emissions are calculated by multiplying the number of products sold and installed by the energy usage for that product category over its lifetime and by the electricity emission factor for the country. The product categories include routers, smartphone, mobile phone, set-top boxes, and others.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
90

Please explain

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. These emissions stem from the waste disposal and treatment of products sold by the reporting company at the end of their life. We carried out an assessment of these emissions in one of the countries in Telefónica and it is not relevant in terms of total emissions. (less than 5%).

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Main downstream leased assets are: office buildings and space in data centers. These emissions are already accounted in our scope 1 and 2 emissions as we have operational control of these assets and we pay for the energy consumed. For example, Telefónica leases space for virtual hosting & cloud computing services in our data centers.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. In this category emissions stem from the operation, during the reporting period, of the different franchises owned by Telefónica. We carried out an assessment of these emissions and it is not relevant in terms of total emissions. (less than 5%).

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. In this category we consider the emissions stem from entities that Telefónica has an equity share in but does not have operational control of. We carried out an assessment of these emissions and it is not relevant in terms of total emissions. (less than 5%).

Other (upstream)

Evaluation status

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Other (downstream)

Evaluation status

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	9680	

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.00001989

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
962946

Metric denominator
unit total revenue

Metric denominator: Unit total
48422000000

Scope 2 figure used
Market-based

% change from previous year
17.7

Direction of change
Decreased

Reason for change
The revenues figure is reported in euros: In 2019, our revenues totaled 48,422 million euros. Our intensity figure has decreased 17.7% because our scope 1 and 2 emissions have decreased 213,710 tCO2e, even that our revenues (denominator), have reduced by 0.6%. The decrease of our emissions has been possible thanks to our Energy Efficiency Plan. In 2019 under this plan we carried out 189 initiatives in our networks and offices reducing energy consumption by 313 GWh. These efforts are reflected in the 72% improvement of our energy intensive ratios (Mwh/PB) since 2015, which shows the decoupling of our business growth from the energy consumption. Moreover thanks to Renewable Energy Plan, in 2019, 81.6% of our electricity consumption is renewably sourced (considering electricity directly purchase). This has allowed us to reduce our Scope 2 emissions by 198,393 tonnes of CO2 equivalent. Please, note that we have recalculated the scope 1 and 2 emissions of 2019 as Central America Operations have been excluded from the reporting perimeter. We have also corrected the units of reported revenues as in 2018 it was reported in millions euros and this year is reported in single units; therefore the data do not coincide with the data reported the previous year.

Intensity figure
15.9

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
962946

Metric denominator
Other, please specify (unit of service provided petabyte (Traffic))

Metric denominator: Unit total
60406

Scope 2 figure used
Market-based

% change from previous year
36

Direction of change
Decreased

Reason for change
Our intensity figure has decreased 36% because our scopes 1 and 2 emissions have decreased 213,710 tCO2e but also because in 2019 our traffic has increased 28% over the past year. The services that Telefónica offer are subject to a continuous growing demand, not only in connectivity, but also in data traffic which is increasing exponentially. The decrease of our emissions has been possible thanks to our Energy Efficiency Plan. In 2019 under this plan we carried out 189 initiatives in our networks and offices reducing energy consumption by 313 GWh. These efforts are reflected in the 72% improvement of our energy intensive ratios (Mwh/PB) since 2015, which shows the decoupling of our business growth from the energy consumption. Moreover thanks to Renewable Energy Plan, in 2019 81.6% of our electricity consumption is renewable sourced (considering electricity directly purchased). This has allowed us to reduce our Scope 2 emissions by 198,393 tonnes of CO2 equivalent. Please, note that we have recalculated the scope 1 and 2 emissions of 2019 as Central America Operations have been excluded from the reporting perimeter. We have also recalculated data traffic due to the expulsion of Central America Operations.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	86417	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	175	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	94	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	150934	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United Kingdom of Great Britain and Northern Ireland	6529
Germany	7000
Spain	38852
Mexico	5554
Central America	20
Colombia	12036
Peru	6650
Ecuador	2220
Venezuela (Bolivarian Republic of)	19715
Chile	9900
Argentina	52183
Uruguay	628
Brazil	76073
United States of America	245
Puerto Rico	15

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Operational Business, this includes all telecom operators in all our countries.	229564
Infrastructure Business, it includes our telecom infrastructure business (Telxius) in all countries.	8056

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United Kingdom of Great Britain and Northern Ireland	139328	66924	545108	369233
Germany	330567	81513	700444	584334
Spain	430932	66724	1662266	1529338
Mexico	176733	130936	335417	86962
Central America	481	481	1774	0
Colombia	31530	18530	289490	119646
Peru	70895	48209	251509	82686
Ecuador	17370	17370	62036	0
Venezuela (Bolivarian Republic of)	37858	37858	125733	0
Chile	100602	69409	251402	78570
Argentina	179230	179230	476845	169
Uruguay	633	633	25809	505
Brazil	131279	4529	1849000	1785210
United States of America	2032	2032	4488	0
Puerto Rico	947	947	2090	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Operational Business, this includes all telecom operators in all our countries.	1555303	652671
Infrastructure Business, it includes our telecom infrastructure business (Telxius) in all countries.	95114	72655

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	198393	Decreased	16.8	Thanks to renewable energy Plan our renewable electricity consumption has increased by 1.254.887 MWh, this means an increase of 37% with respect to 2018. This results in a reduction of 198,393 tCO2e of our Scope 2 Market-based. Through these activities we reduced our emissions by 198,393 tCO2e, and our total S1 and S2 emissions in the previous year were 1,176,656 tCO2e, therefore we arrived at -16.8% through (-198,393 /1,176,656) * 100 = -16.8%) (i.e. an 16.8% decrease in emissions).
Other emissions reduction activities	15317	Decreased	1.3	In 2019, thanks to the cooling projects implemented, and the old refrigeration equipment replaced with new more efficient equipment which uses refrigerant gases with lower GWP we reduced the leakage of refrigerant gases in our operations and also reduced our maintenance costs. Additionally, in 2019 we have implemented Energy Efficiency Projects aimed to reduce fuel consumption in operations and vehicles, that led us to a reduction of 59,770 MWh. This results in a reduction of 15,317 tCO2e of our Scope 1. Through these activities we reduced our emissions by 15,317 tCO2e, and our total S1 and S2 emissions in the previous year was 1,176,656 tCO2e, therefore we arrived at -3,11% through (-15,317 /1,176,656) * 100 = -1.3% (i.e. an 1.3% decrease in emissions).
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	0	No change	0	
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating conditions	0	No change	0	
Unidentified	0	No change	0	
Other	0	No change	0	

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	38955	336148	375103
Consumption of purchased or acquired electricity	<Not Applicable>	4631274	1937347	6568621
Consumption of purchased or acquired heat	<Not Applicable>	0	9410	9410
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	5381	<Not Applicable>	5381
Total energy consumption	<Not Applicable>	4675610	2282905	6958515

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)
Biodiesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
258

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
258

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
2.499

Unit
kg CO2e per liter

Emissions factor source
GHG Protocol. Cross sector tool (April, 2014)

Comment

Fuels (excluding feedstocks)
Bioethanol

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
38697

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
38697

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
1.469

Unit
kg CO2e per liter

Emissions factor source
GHG Protocol. Cross sector tool (April, 2014)

Comment

Fuels (excluding feedstocks)
Diesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
224061

MWh fuel consumed for self-generation of electricity
153877

MWh fuel consumed for self-generation of heat
70184

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
2.676

Unit
kg CO2e per liter

Emissions factor source
GHG Protocol. Cross sector tool (April, 2014)

Comment

Fuels (excluding feedstocks)
Natural Gas

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
24988

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
24988

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
1.885

Unit
kg CO2e per liter

Emissions factor source
GHG Protocol. Cross sector tool (April, 2014)

Comment

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
5262

MWh fuel consumed for self-generation of electricity
5254

MWh fuel consumed for self-generation of heat
8

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
1.611

Unit
kg CO2e per liter

Emissions factor source
GHG Protocol. Cross sector tool (April, 2014)

Comment

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
81837

MWh fuel consumed for self-generation of electricity
4834

MWh fuel consumed for self-generation of heat
77003

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
2.272

Unit
kg CO2e per liter

Emissions factor source
GHG Protocol. Cross sector tool (April, 2014)

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	5381	5381	5381	5381
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2

figure reported in C6.3.

Sourcing method
Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type
Other, please specify (Solar PV; Concentrated solar power (CSP); Wind; Hydropower; Biomass (including biogas))

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Europe

MWh consumed accounted for at a zero emission factor
2482892

Comment
The energy purchasing strategy established in the Renewable Energy Plan is put into effect in several different ways. In Europe, given the maturity of the energy market, the strategy is based on the acquisition of Guarantees of Origin. This is the method used in Spain, Germany and the UK.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Other, please specify (Solar PV; Concentrated solar power (CSP); Wind Hydropower)

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Latin America (LATAM)

MWh consumed accounted for at a zero emission factor
276271

Comment
The energy purchasing strategy established in the Renewable Energy Plan is put into effect in several different ways. In some countries of Latin America, it is possible, because of the energy market, to acquire electricity bundled with energy attribute certificates. This is the method used in Chile, Colombia and Peru.

Sourcing method
Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type
Other, please specify (Solar PV; Wind; Hydropower)

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Brazil

MWh consumed accounted for at a zero emission factor
1283240

Comment
All the electricity consumption of our operation in Brazil, apart from PPAs, is supported by Energy attribute certificates, I-RECs.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type
Other, please specify (Solar PV; Wind; Hydropower)

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Brazil

MWh consumed accounted for at a zero emission factor
467966

Comment
The Brazilian energy sector is partially liberalized as a cosequence of some regulations changes. This liberalized market is only available for industry and commerce, and is incentivized and supported by renewable energy sources. So, all the electricity available in this incentivized and liberalized market, comes from renewable sources but it is not supported by energy attribute certificates. This market only incentivizes energy from renewable sources: Solar PV, Wind, etc.

Sourcing method
Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Mexico

MWh consumed accounted for at a zero emission factor
86901

Comment
In 2018 the largest solar park in the country started supplying our operation in Mexico, thanks to a PPA signed between Telefónica and the solar power generation company. This solar park will supply 40% of the power consumed by Telefónica Mexico over the next 20 years.

Sourcing method
Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

Low-carbon technology type
Other, please specify (Solar PV, MiniHydro, Wind)

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Brazil

MWh consumed accounted for at a zero emission factor
34004

Comment
Thanks to a new regulation in the energy market of Brazil, it is permitted to sign long-term contracts with renewable energy generators connected to the grid (Distributed Generation), All the electricity generated under this scheme comes from renewable sources (Solar PV, MiniHydro and Wind)

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
1
DECLARACION TELEFONICA GLOBAL EN 2019_signed.pdf

Page/ section reference
The attached document is the Verification Statement of AENOR for Telefónica on the Inventory of greenhouse gas emissions corresponding to the year 2019, so all the document is relevant. The specific data on emissions are on page 4 and 5

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
1
DECLARACION TELEFONICA GLOBAL EN 2019_signed.pdf

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Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
1
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Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Purchased goods and services

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
1
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Page/section reference
The attached document is the Verification Statement of AENOR for Telefónica on the Inventory of greenhouse gas emissions corresponding to the year 2019, so all the document is relevant. The specific data on emissions are on page 4 and 5

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Capital goods

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
1
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Page/section reference
The attached document is the Verification Statement of AENOR for Telefónica on the Inventory of greenhouse gas emissions corresponding to the year 2019, so all the document is relevant. The specific data on emissions are on page 4 and 5

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
1
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Page/section reference
The attached document is the Verification Statement of AENOR for Telefónica on the Inventory of greenhouse gas emissions corresponding to the year 2019, so all the document is relevant. The specific data on emissions are on page 4 and 5

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Business travel

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
1
DECLARACION TELEFONICA GLOBAL EN 2019_signed.pdf

Page/section reference
The attached document is the Verification Statement of AENOR for Telefónica on the Inventory of greenhouse gas emissions corresponding to the year 2019, so all the document is relevant. The specific data on emissions are on page 4 and 5

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Use of sold products

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
1

DECLARACION TELEFONICA GLOBAL EN 2019_signed.pdf

Page/section reference
The attached document is the Verification Statement of AENOR for Telefónica on the Inventory of greenhouse gas emissions corresponding to the year 2019, so all the document is relevant. The specific data on emissions are on page 4 and 5

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Year on year change in emissions (Scope 1 and 2)	ISO 14064	According to the Recommendation ITU L-1420, the Telefónica's Energy and GHG Emissions Inventory Report describes the results of Energy and GHG emissions assessment including the year on year change emissions (Scope 1 and 2). Therefore, this information is verified in the ISO 14064 verification process.
C4. Targets and performance	Year on year change in emissions (Scope 3)	ISO 14064	AENOR has verified our scope 3 emission data, including the year on year change emissions and the reporting year.
C4. Targets and performance	Progress against emissions reduction target	AA1000AS	PWC has verified this indicator under AA1000AS standard in our Integrated Report.
C6. Emissions data	Year on year emissions intensity figure	AA1000AS	PWC has verified this indicator under AA1000AS standard in our Integrated Report.
C8. Energy	Other, please specify ((Energy and Renewable Electricity %) Energy data and year on year change in energy consumption and percentage of renewable energy consumption.)	ISO 14064	According to the Recommendation ITU L-1420, Telefónica's Energy and GHG Emissions Inventory Report describes the results of Energy and GHG emissions assessment including the year on year change emissions (Scope I and 2). Therefore, this information is verified in the ISO 14064 verification process

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase
Credit purchase

Project type
Wind

Project identification
VTRM Renewable Energy - VCS 1812 This project has positive social and environmental impacts in the Northeast region of Brazil. The project focuses on the needs of local communities by means of collective construction helping to transform realities and collaborating on a legacy in the territory.

Verified to which standard
VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)
61929

Number of credits (metric tonnes CO2e): Risk adjusted volume
61929

Credits cancelled
Yes

Purpose, e.g. compliance
Voluntary Offsetting

Credit origination or credit purchase
Credit purchase

Project type
Agriculture

Project identification
Project REDD+ Jari/Pará CCBS Ouro - VCS 1811 Jari Valley covers several productive activities – from forest management to sustainable agriculture and extractivism – being a region of great social and environmental importance, and constantly threatened by human activity. Jari Group's properties are located in this context and have great regional importance. Aiming to curb the constant threats towards the area, the Amapá & Pará REDD+ Projects seek to promote qualification of the sustainable forest management and agroextractivism productions, promoting the well-being of the communities and turning them into partners for the maintenance of the forest resources.

Verified to which standard
VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)
9925

Number of credits (metric tonnes CO2e): Risk adjusted volume
9925

Credits cancelled
Yes

Purpose, e.g. compliance
Voluntary Offsetting

Credit origination or credit purchase
Credit purchase

Project type
Transport

Project identification
Ticket Log Fleet Fuel Substitution Brazil - VCS1142

Verified to which standard
VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)
2059

Number of credits (metric tonnes CO2e): Risk adjusted volume
2059

Credits cancelled
Yes

Purpose, e.g. compliance
Voluntary Offsetting

C11.3

(C11.3) Does your organization use an internal price on carbon?
No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

% of suppliers by number

0.21

% total procurement spend (direct and indirect)

43

% of supplier-related Scope 3 emissions as reported in C6.5

39

Rationale for the coverage of your engagement

In 2019, we developed a new supplier engagement programme with key suppliers. These suppliers have been selected based on the following criteria: - % of their emissions contribution to our Scope 3 - % of spending - Degree of maturity in its management of climate change - Strategical importance for Telefónica The suppliers included in this program represent 66% of the Category 1&2 of our Scope 3 and 39% our total Scope 3 emissions. The emissions covered by the suppliers in this programme are included in our Scope 3 reduction targets - to reduce 30% emissions per unit of product purchased between 2016 and 2025 (categories 1&2 of Scope 3).

Impact of engagement, including measures of success

Our supplier engagement programme has the objective of collecting primary information from our suppliers in order to understand the level of maturity of their sustainability strategies and help them move forward in their Climate Change Management and to set more ambitious emission reduction targets. The carbon maturity curve designed by Telefónica classify suppliers in 5 levels and identify actions and initiatives to be implemented by maturity level. Within this program we have organized a series of workshops to educate suppliers on climate change, inspiring them to take actions and to establish a forum of best practices and a space to encourage innovation and reduce carbon emissions. We measure the success of the engagement through two main KPIs: % of participation as a consequence of the engagement and % of companies committed with a pledge. We would consider this engagement to be successful if both the % participation and the % of committed companies is over 50% of total invited suppliers. This programme is ongoing and 80% of the invited companies have already participated, satisfying the impact of engagement criteria that we were pursuing. These suppliers committed to taking actions related to the carbon journey in fields that include Renewable Energy purchase, Energy Efficiency Projects, Emissions Targets validations (SBT) and switch to lower emissions vehicles, within others. We consider this initiative to be a success because not only 82% of the invited suppliers participated (widely surpassing our 50% initial target) but also because they represent 66% of the emissions for the categories 1&2 of our scope 3. In regards to the pledges, 63% of the suppliers committed to a pledge, which is above our initial expectations of 50%. Due to these results, we consider this initiative to be a great success and are further developing the programme, incorporating new suppliers in 2020.

Comment

Type of engagement

Compliance & onboarding

Details of engagement

Included climate change in supplier selection / management mechanism
Code of conduct featuring climate change KPIs
Climate change is integrated into supplier evaluation processes

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% of supplier-related Scope 3 emissions as reported in C6.5

66

Rationale for the coverage of your engagement

We are aware of the opportunities during the acquisition process to minimise their impact on the environment. Hence within our Global Supply Chain Sustainability Policy (SCSP) https://www.Telefónica.com/en/web/responsible-business/our-commitments/supply-chain , we have incorporated environmental, incl. CC & circular economy criteria, such as the compulsory incorporation of preventive measures & LCAs when supplying products/services. Any company that wishes to be our supplier must accept the minimum requirements established by the SCSP in the registration&renewal processes. If a supplier does not meet the required standards or is not able to provide the info, we initiate the necessary processes to secure a commitment to implement improvement plans. The minimum standards related with CC included in our SCSP are: (i) CC: the supplier will minimize their impact on CC considering their entire supply chain (scopes 1,2&3). They should work to reduce its GHG emissions by setting reduction targets for the next 3 yrs, which should, as far as possible, be science-based. To this end, they will promote EE & RE initiatives in their own activities & will support any requests for data on emissions/energy relevant to the products & services they provide to Telefónica. (ii) Consumption of materials, resources & atmospheric emissions: The supplier shall use eco-efficient criteria in the development of its activity, especially with respect to scarce resources such as water or non-renewable resources. (iii) Cooling gases: The supplier shall not supply equipment containing ozone-depleting gases (such as CFC or HCFC), nor shall it refill it with these gases, unless expressly authorised by Telefónica. In the offers, gases with a lower Global Warming Potential (PCG or GWP) will always be prioritised. For maintenance works on cooling equipment, the leakage of these gases into the atmosphere must be prevented in all cases. The supplier must also have a record of the amount (in kgs) of each type of gas refilled. This information must be reported quarterly to us. (iii) Other related issues like "Life cycle & preventive action" can be seen online. In the evaluation process we

focus on those suppliers that are the most significant due to their level of risk & the impact they have on our business objectives, including CC. We have two main tools: JAC (Joint Audit Cooperation) & ECOVADIS

Impact of engagement, including measures of success

Sustainability in the supply chain has become a key issue in the telco sector, since companies share more & more parts of the value chain with our suppliers & outsourcers. When facing CC, we need to engage our supply chain from the very beginning & for that we have included the Minimum Responsible Business Criteria in our Supply Chain Sustainability Policy. Measures of success: - 100% of our suppliers have accepted to conduct their activities in line with ethical standards that are similar to ours, guaranteeing compliance with all human & fundamental labour rights, & fostering protection of the environment. The success of the engagement strategy is high, because all our suppliers have to meet our minimum environmental criteria included in our Supply Chain Sustainability Policy (e.g. GHG emission reduction targets). - Additionally, suppliers accounting for 57% of the risk suppliers identified in our global risk analysis were evaluated via the ECOVADIS tool which includes Climate Change aspects in the evaluation process. This suppliers represent 39% of the total procurement spend. In 2019, we also received recognition for our transparency & commitment to customers as regards climate change, obtaining an A rating in the CDP Supply Chain Climate. Moreover, in the UK, Telefónica has been recertified to the Carbon Trust Standard for Supply Chain at level 3, the highest possible level. The standard is the world's first independent certification for recognising organisations that are measuring, managing & reducing greenhouse gas emissions within their supply chains, demonstrating leadership in their industry by making real progress year-on-year Moreover we include the reduction of carbon as an additional criteria to award a contract, requesting an active reduction plan, or a proposal regarding this subject, from our suppliers. Indeed, in our main procurement contracts in the UK, the reduction of carbon is one more aspect in the evaluation of offers. We continued to ask our suppliers for contractually agreed carbon reduction programs or plans to establish them in our major contracts. The work carried out in 2019 has resulted in 55 completed or ongoing programmes (contractually agreed) & four under development. These programs are another step towards reaching the goal set out to reduce the emissions of our supply chain – 30% per EUR spent by 2025 (2016 levels)

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

12

% of customer - related Scope 3 emissions as reported in C6.5

41

Portfolio coverage (total or outstanding)

<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

Telefónica works to make its customers aware of the climate change impact by providing information on this topic in our web, blog, social networks, etc. We have also launched a specific campaign focused on the products and services we offer our customers: The initiative, named Eco Rating, is a label which evaluates the environmental impact of the entire production, use and disposal process of mobile phones such as energy consumption or GHG emissions. A classification is given on the basis of 100 criteria which assess the impact on the environment of the life cycle of the devices, including indicators such as global warming, the use of raw materials or their ease of recycling. The final score is represented on a scale of 1 to 5 (1 being the lowest score and 5 being the highest), with one decimal point. This initiative allows the customers to make informed purchasing decisions when buying new phones, taking environmental and climate change criteria into account. This initiative also allows us to work with our suppliers, since this information serves to encourage innovation and implementation of the most environmentally friendly practices throughout the production cycle and with our peers, to drive good practices across the industry. We have implemented this initiative in 10 countries of strategical importance to Telefónica.

Impact of engagement, including measures of success

Measures of success: We inform our customers about the score of their devices on the Eco Rating scale and offer them the possibility of choosing a more sustainable option within their purchasing criteria. We use as a measure of success of the initiative the % of Telefónica's portfolio of devices that currently have a Eco Rating score and the average score of our devices portfolio. We would consider the initiative to be successful if more than 50% of our portfolio had been rated and the average score is over 3. Impact: We consider the success for the engagement strategy to be high due to the fact that in 2019 we had 80% of our portfolio with the Eco Rating label (significantly higher than the target of 50%), and the average score is 3.2 out of 5 (above the threshold established by Telefonica as a success). To date, we inform about Eco Rating of our terminals in 10 countries. We expect to reach all Telefónica OBs in the next 2 years.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Trade associations

Other

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association
Telefonica is member of the Board of the Spanish Green Growth Group. http://grupocrecimientoverde.org/ This business association was created to promote a green development, facilitate public-private agreement and advance collaboration in environmental challenges we face today, mainly climate change.

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The Spanish Green Growth Group comprises a group of companies in Spain which aim to convey to society and government their vision of an economic growth model that is compatible with the efficient use of natural resources. Social and environmental sustainability is essential to ensure the economic sustainability of business, and it is something that our stakeholders (shareholders, clients and suppliers) are demanding. We understand that the response to this demand must be shared with other players, particularly with government. This approach inspires us to define a Green Growth model for Spain and identify our country's potential and the necessary conditions for it to be realised. A model which is compatible with the ultimate goal of economic growth and job creation. Green Growth is linked to those economic activities which help preserve the quality of our environment, primarily through the efficient use of resources. Efficient use means working together to protect biodiversity, the quality of air, soil and water and, of course, reduce greenhouse gas emissions linked to climate change. The debate on climate change at a national and international level makes us keenly aware of the need to publicly position ourselves and to implement initiatives in our companies to analyse the climate footprint and adopt abatement and offsetting measures. Working together to achieve emission reduction targets must be perceived as a task shared by citizens, companies, and also the public administrations. The goal is to respond to the challenge of sustainable development, a concept which is currently the subject of discussion in many international forums, inspiring policies in developed and emerging countries. It is a concern that will lead to demand for new goods and services, in which public-private partnerships will be essential. The world must evolve towards a low carbon economy. In view of this challenge, the economies that lead the transformation will be the first to leverage the opportunities that green growth is already beginning to provide. Spain's business sector has an enormous opportunity to position itself and to lead the change in the growth model, in Spain and around the world. See complete text of statement: http://grupocrecimientoverde.org/wp-content/uploads/2016/05/declaracion_barcelona_vf_en.pdf

How have you influenced, or are you attempting to influence their position?
Telefonica is part or the Board of this association and we participate in public debates and interviews to promote the vision and mission of it.

Trade association
GSMA (Groupe Special Mobile Association)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with almost 300 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress. The GSMA plays an extremely important role in the development of the mobile industry, uniting the world behind a standard technology and ensuring seamless and interoperable mobile services for billions of consumers globally. Key programmes : Network 2020 programme is focused on: The development and deployment of IP services, The evolution of the 4G networks in widespread use today, and the 5G Journey, developing the next generation of mobile technologies and service. Personal Data and Mobile Connect helps operators to manage consumers' digital identities across multiple online services, ranging from access to content and services on the web, through to more secure e-government and banking services. Industry Purpose's activities are a clear commitment to supporting the Sustainable Development Goals. As the first industry to align itself to the SDGs; the GSMA is stating a clear intention to contribute and advance the societies in which we operate. Industry Purpose works closely with the world's mobile operators who are all unified behind one common industry purpose: Connecting everyone and everything to a better future in achieving the Goals. GSMA Mobile for Development brings together our mobile operator members, tech innovators, the development community and governments, to prove the power of mobile in emerging markets. We identify opportunities and deliver innovations with socio-economic impact in financial services, health, agriculture, digital identity, energy, water, sanitation, disaster resilience and gender equality.

How have you influenced, or are you attempting to influence their position?
Telefónica is part of GSMA climate action programme which aims to work on a path to achieve net-zero GHG emissions by 2050 for the ICT sector. One of the most remarkable results of this taskforce, is the guide "Setting Climate Targets", This ICT sectoral target-setting approach was developed through a collaboration between the Global Enabling Sustainability Initiative (GeSI), the GSMA, the International Telecommunications Union (ITU), and the Science Based Targets initiative (SBTi). The methodology currently applies to mobile network operators, fixed network operators and data centre operators exclusively, with the ICT sub-sector for equipment manufacturers to be added later in 2020. Overall, Telefónica is a key contributor to the GSMA: developing standards, leveraging ecosystems, engaging governments or other bodies.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Joint Audit Cooperation (JAC) is an initiative of telecom operators aiming to assess and develop the CSR performance (including climate change issues) on the manufacturing sites of strategic suppliers in the ICT industry. As of today, there are 17 telecom operators from 15 countries which have joined the JAC initiative.

JAC members cooperate beyond competition to ensure suppliers conform to CSR regulations mainly by using on-site audit verification. They share resources and best practices to develop long term Corporate Social Responsibility implementation in the different layers or tiers of the ICT Supply Chain globally.

After years of conducting CSR audits, JAC members decided to move to another level of cooperation and address the challenges of GHG emissions in the ICT industry.

To address this challenge, the Climate Change workstream was set, which aims to encourage JAC suppliers to take action towards CO2 emissions reductions of scope 3 emissions (categories 1 and 2). Telefónica is leading the JAC Climate Change taskforce.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Telefónica has a Sustainable Energy Policy and a Climate Change and Energy Strategy that clearly defines our priorities: reduce our carbon footprint and increase the sales of new digital services for a low carbon economy. One of the pillars of this strategy is the policy advocacy and we recognize we have to work together with the sector to leverage the role of ICTs for climate change mitigation & adaptation. The work to situate Digitization on the top of the political agenda of climate change and environmental sustainability worldwide is our main objective in this policy influence. To achieve this and to be consistent with our global strategy we have established the following processes:

- Coordinate all activities through one single channel: The climate change & energy efficiency Office of Telefónica

- All participation in sectoral or industrial groups has to be approved by the Board to assure consistency with Telefónica policies

- Invest and collaborate in research and communication on ICTs, environmental sustainability and climate change

- Participate in trade associations approved by the Board that help the implementation of Telefónica Sustainable Energy Policy and a Climate Change and Energy Strategy (i.e: Spanish Green Growth Group)

- Participate in standardization activities on ICTs and Climate Change (i.e: ITU)

Literally, commitments of our Sustainable Energy Policy:

All Telefónica Group companies undertake to:

1. Apply continuous energy improvement across the entire Company, through the systematic assessment of performance.

2. Set targets for energy consumption, carbon emissions and renewable energy consumption on a global and local level, and provide the resources required for their achievement.

3. Move forward in the use of energy from renewable sources thought the Telefónica Renewable Energy Plan, with the goal of consuming 85% of electricity from renewable sources by 2025 and 100% by 2030

4. Establish common standards of energy management, share best practices and gradually implement energy management systems that contribute to reducing their consumption and optimise the efficiency of processes.

5. Ensure compliance with current legislation pertaining to energy and other commitments to which the organisation subscribes.

6. Gradually incorporate criteria for the internalisation of the cost of energy and carbon, such as the Total Cost of Ownership (TCO) as well as the measurement of emissions in our supply chain. Actively collaborate with the supply chain in order to promote moving forward in our commitments and energy standards.

7. Communicate this policy and the energy performance of the Company, as well as having our performance verified by an external entity.

8. Cooperate with other entities towards a low-carbon economy, i.e. through the exchange of good practices within the industry.

9. Foster greater awareness and commitment around consumption and energy efficiency.

10. Utilise the potential of digital innovation and the investment of resources in the improvement of the infrastructure to promote energy efficiency and the reduction of emissions among our employees, partners and customers.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports, incorporating the TCFD recommendations

Status
Complete

Attach the document
Telefónica_Consolidated_Management_Report_2019.pdf

Page/Section reference
pages 68-73; 78-82; 218; 390-395

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
Find attached the integrated report. You can find this document in the following link: https://www.telefonica.com/documents/153952/13347920/2019-Telefonica-Consolidated-Management-Report.pdf/0a9c8382-c9ff-ba52-1d5b-e431a7efab3f

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Global Chief IT and Operations Officer (GCTIO)	Chief Operating Officer (COO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Telefónica is one of the world's largest telecommunications companies by market cap. Its activities are centred mainly on the fixed and mobile telephony businesses, while its broadband business is the key growth driver underpinning both. Since 2008, Telefónica has been working hard to link climate change into business, as we have recognized that it is a challenge that we must meet for reasons of finance and efficiency, and a new source of business opportunities. We also think that our climate strategy must be extended to our supply chain. ICT's greatest success lies in increasing energy efficiency in other sectors and specially our customers. There are practical examples of the opportunities and benefits that ICT sector provide for carbon abatement opportunities to other sectors. Anyway, it is Telefónica's role to identify or establish internal procedures based on standardized methodologies, that will certainly demonstrate that our customers are indeed getting benefits using our service. For this, we have been working individually and as a sector to identify and develop methodologies for emissions accounting in ICT processes, products and services.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	48422000000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?
Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	ES	0178430E18

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member
Accenture

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
1.9

Uncertainty (±%)
30

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Global emissions data for our Scope 1 and Scope 2 are lower because of several efficiency enhancement measures and our renewable energy plan. additionally, please note that in 2019 we have excluded Central America from the scope.

Requesting member
Accenture

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
5.79

Uncertainty (±%)
30

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Global emissions data for our Scope 1 and Scope 2 are lower because of several efficiency enhancement measures and our renewable energy plan. additionally, please note that in 2019 we have excluded Central America from the scope.

Requesting member
Aguas Andinas SA

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Chile

Emissions in metric tonnes of CO2e
0.001

Uncertainty (±%)
25

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Global emissions data for our Scope 1 and Scope 2 are lower because of several efficiency enhancement measures and our renewable energy plan.

Requesting member
Aguas Andinas SA

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Chile

Emissions in metric tonnes of CO2e
0.009

Uncertainty (±%)
25

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Global emissions data for our Scope 1 and Scope 2 are lower because of several efficiency enhancement measures and our renewable energy plan.

Requesting member
Amdocs Ltd

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Brasil

Emissions in metric tonnes of CO2e
0.11

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Emissions data associated with Scope 1 and 2 in Brazil has been significantly reduced due to several efficiency initiatives and our renewable energy plan. However, this year we have sold more accesses to our customer, so the emissions associated with Scope 1 have increased over last year.

Requesting member
Amdocs Ltd

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Brasil

Emissions in metric tonnes of CO2e
0.01

Uncertainty (±%)
5

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Emissions data associated with Scope 1 and 2 in Brazil has been significantly reduced due to several efficiency initiatives and our renewable energy plan. However, this year we have sold more accesses to our customer, so the emissions associated with Scope 1 have increased over last year.

Requesting member
AT&T Inc.

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain

Emissions in metric tonnes of CO2e
0.6

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Spain has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
AT&T Inc.

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain

Emissions in metric tonnes of CO2e
1.04

Uncertainty (±%)
5

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Spain has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Bank of America

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
0.0028

Uncertainty (±%)
10

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Telefónica Sustainability team has not been able to find total data of equivalent accesses that our company provides in this case. However, if we consider that one equivalent access equals 2.80 kgCO2eq per unit, our client could calculate total emissions if they know the number of purchased accesses. For example, if company have purchased 1,000 accesses, this equates to 2,800 kgCO2eq.

Requesting member
Bank of America

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
0.0028

Uncertainty (±%)
10

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Telefónica Sustainability team has not been able to find total data of equivalent accesses that our company provides in this case. However, if we consider that one equivalent access equals 2.80 kgCO2eq per unit, our client could calculate total emissions if they know the number of purchased accesses. For example, if company have purchased 1,000 accesses, this equates to 2,800 kgCO2eq.

Requesting member
Banco Bradesco S/A

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Brasil

Emissions in metric tonnes of CO2e
10.02

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Brazil has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Banco Bradesco S/A

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Brasil

Emissions in metric tonnes of CO2e
0.6

Uncertainty (±%)
5

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Brazil has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
BT Group

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain

Emissions in metric tonnes of CO2e
20.85

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Spain has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
BT Group

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain

Emissions in metric tonnes of CO2e
35.8

Uncertainty (±%)
5

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Spain has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Cellnex Telecom SA

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain

Emissions in metric tonnes of CO2e
0.02

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous.

Requesting member
Cellnex Telecom SA

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain

Emissions in metric tonnes of CO2e
0.04

Uncertainty (±%)
5

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous.

Requesting member
Deutsche Telekom AG

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain

Emissions in metric tonnes of CO2e
0.08

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Spain has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Deutsche Telekom AG

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain

Emissions in metric tonnes of CO2e
0.14

Uncertainty (±%)
5

Major sources of emissions

Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Spain has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Grupo Santander Brasil

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Brasil

Emissions in metric tonnes of CO2e
0.02

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Brazil has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Grupo Santander Brasil

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Brasil

Emissions in metric tonnes of CO2e
0.001

Uncertainty (±%)
5

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Brazil has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
GSMA

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
0.0028

Uncertainty (±%)
10

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Telefónica Sustainability team has not been able to find total data of equivalent accesses that our company provides in this case. However, if we consider that one equivalent access equals 2.80 kgCO2eq per unit, our client could calculate total emissions if they know the number of purchased accesses. For example, if company have purchased 1,000 accesses, this equates to 2,800 kgCO2eq.

Requesting member
GSMA

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
0.0028

Uncertainty (±%)
10

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Telefónica Sustainability team has not been able to find total data of equivalent accesses that our company provides in this case. However, if we consider that one equivalent access equals 2.80 kgCO2eq per unit, our client could calculate total emissions if they know the number of purchased accesses. For example, if company have purchased 1,000 accesses, this equates to 2,800 kgCO2eq.

Requesting member
Itaú Unibanco Holding S.A.

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Brasil

Emissions in metric tonnes of CO2e
18.37

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Brazil has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Itaú Unibanco Holding S.A.

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Brasil

Emissions in metric tonnes of CO2e
1.09

Uncertainty (±%)
5

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in Brazil has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Mastercard Incorporated

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
0.0028

Uncertainty (±%)
10

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Telefónica Sustainability team has not been able to find total data of equivalent accesses that our company provides in this case. However, if we consider that one equivalent access equals 2.80 kgCO2eq per unit, our client could calculate total emissions if they know the number of purchased accesses. For example, if company have purchased 1,000 accesses, this equates to 2,800 kgCO2eq.

Requesting member
Mastercard Incorporated

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
0.0028

Uncertainty (±%)
10

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Telefónica Sustainability team has not been able to find total data of equivalent accesses that our company provides in this case. However, if we consider that one equivalent access equals 2.80 kgCO2eq per unit, our client could calculate total emissions if they know the number of purchased accesses. For example, if company have purchased 1,000 accesses, this equates to 2,800 kgCO2eq.

Requesting member
Microsoft Corporation

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
4.18

Uncertainty (±%)
30

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Global emissions data for our Scope 1 and Scope 2 are lower because of several efficiency enhancement measures and our renewable energy plan. additionally, please note that in 2019 we have excluded Central America from the scope.

Requesting member
Microsoft Corporation

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
12.75

Uncertainty (±%)
30

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Global emissions data for our Scope 1 and Scope 2 are lower because of several efficiency enhancement measures and our renewable energy plan. additionally, please note that in 2019 we have excluded Central America from the scope.

Requesting member
Naturgy Energy Group SA

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain, Chile, Colombia, Brasil & Argentina

Emissions in metric tonnes of CO2e
44.33

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 of the business units has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Naturgy Energy Group SA

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain, Chile, Colombia, Brasil & Argentina

Emissions in metric tonnes of CO2e
97.52

Uncertainty (±%)
5

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 of the business units has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Nokia Group

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
17.71

Uncertainty (±%)
30

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Global emissions data for our Scope 1 and Scope 2 are lower because of several efficiency enhancement measures and our renewable energy plan. additionally, please note that in 2019 we have excluded Central America from the scope.

Requesting member
Nokia Group

Scope of emissions

Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
54.07

Uncertainty (±%)
30

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Global emissions data for our Scope 1 and Scope 2 are lower because of several efficiency enhancement measures and our renewable energy plan. additionally, please note that in 2019 we have excluded Central America from the scope.

Requesting member
Sky plc

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
0.0028

Uncertainty (±%)
10

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Telefónica Sustainability team has not been able to find total data of equivalent accesses that our company provides in this case. However, if we consider that one equivalent access equals 2.80 kgCO2eq per unit, our client could calculate total emissions if they know the number of purchased accesses. For example, if company have purchased 1,000 accesses, this equates to 2,800 kgCO2eq.

Requesting member
Sky plc

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
0.0028

Uncertainty (±%)
10

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. Telefónica Sustainability team has not been able to find total data of equivalent accesses that our company provides in this case. However, if we consider that one equivalent access equals 2.80 kgCO2eq per unit, our client could calculate total emissions if they know the number of purchased accesses. For example, if company have purchased 1,000 accesses, this equates to 2,800 kgCO2eq.

Requesting member
SSE

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica UK

Emissions in metric tonnes of CO2e
1.57

Uncertainty (±%)
25

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in the UK has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
SSE

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica UK

Emissions in metric tonnes of CO2e
16.09

Uncertainty (±%)
25

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous. This year we have sold fewer accesses to our client and emissions data associated with Scope 1 and 2 in the UK has been considerably reduced due to several efficiency measures and our renewable energy plan. For this reason, the value reported this year changes compared to previous year.

Requesting member
Zurich Insurance Group

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain, Chile, Colombia, Brasil & Argentina

Emissions in metric tonnes of CO2e
6.14

Uncertainty (±%)
5

Major sources of emissions
Fuel consumption in operations (diesel, natural gas, LPG) and vehicles (gasoline and diesel) and fugitive emissions from refrigerant gases used in airconditioning units.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous.

Requesting member

Zurich Insurance Group

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
Telefónica Spain, Chile, Colombia, Brasil & Argentina

Emissions in metric tonnes of CO2e
12.75

Uncertainty (±%)
5

Major sources of emissions
Electricity in networks and offices

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The customer makes use of Telefónica networks and services through ICT goods and technology, which are provided by external suppliers, generating a carbon footprint in which Telefónica only contributes in the emissions at the service Provision phase. The methodology for allocating emissions to customer's products and services will be based on the emissions generated in the provision phase of the service. These emissions are the ones reported in Telefónica's Scope 1 and Scope 2 emissions that are generated for the core operation of the business. For establishing the emissions of the service provision phase, we allocate only Scope 1 & 2 emissions. We obtain these values in the methodology of data acquisition and emissions reporting of Telefónica, according to GHG Protocol, ISO 14064 and ITU-T L1420. The sources identified at service provision phase are: - Scope I: Fuel Consumption (Base Stations, Technical Buildings, Data Centres, Shops, Call centers, Offices and Vehicles Fleet) and fugitive emissions from refrigerant gases used in airconditioning units. - Scope II: Electricity Consumption (Base Stations, Technical Buildings, Data Centres, Offices, shops and Call centers) On first instance, the allocation of emissions will be based on the CO2 inventory of Telefónica under the scheme of the GHG Protocol, ISO 14064 and ITU-T L1420, correspondent to the accesses and costs of the service provision. Only CO2 emissions of scope 1 and 2 will be used. The major limitations of this process are that at the moment, there is not a global and sectoral methodology/standard to evaluate the energy and CO2 Savings due to ICT product and services provision. Assumptions in the process of allocating emissions: - Only has been considered the service provision phase of the lifecycle - The Emissions per unit of service of the company reflects the emissions per unit of service of the country it operates - The savings of emissions due to our services have not been considered - The emissions per unit of service are homogenous in each country -In case that there are no local information, the emissions per unit of service are considered globally or regionally homogenous.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Total access by country and Scope 1 and 2 emissions (Integrated Report 2019, pages 18 and 82):https://www.telefonica.com/documents/153952/13347920/2019-Telefonica-Consolidated-Management-Report.pdf/0a9c8382-c9ff-ba52-1d5b-e431a7efab3f

We have considered that it must be defined the amount of accesses related to the services provided by Telefónica considered as our "unit of product". There are two types of groups of accesses, the first: final client accesses and second wholesale services accesses. Details are described as follows:

Final Client Accesses
1) Fixed Telephony Accesses
2) Internet and Data Accesses: these accesses can be Narrowband, Broadband and others (i.e: ADSL, satellite, optical fibre, cable modem and broadband circuits.)
3) Mobile Accesses
4) Pay TV Accesses

Wholesale Accesses:
5) Unbundled loops (Shared ULL or Full Ull)
6) Wholesale ADSL.

Telefónica usually uses Equivalent Access (EA) as unit of product referring to Energy and CO2. These Accesses puts at the same level the different type of accesses in terms of energy consumption. By knowing the local emissions of a specific country and its total equivalent accesses (EA) we can have the figure of tonnes of CO2 per EA. This figure can be used to allocate emissions to a specific customer company by knowing the EAs provided by Telefónica to that customer. We drive a Survey to the business lines to ask the total accesses provided to each customer per country of operation and then we calculate the tCO2 per country/customer. Once we have all the information we can add all the local emissions to obtain a total gross figure per Customer Company If it is not possible to obtain specifically the data of accesses for every country of operation of the customer where it receives services from Telefónica, we use the regional figure of tCO2/EA for Europe or Latin America, or the global figure for tCO2/EA. There is another key indicator that Telefónica will use in case there is not a clear figure of the number and nature of the accesses provided. Telefónica will use revenues instead of equivalent accesses in that case. This can be useful in case of a local lack of information.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	Actually there is not a standard methodology of ICT products and services GHG emissions accounting, this situation derives from the difficulty of associate the emissions of operations to a concrete service or to the use of network of a concrete customer. There is not a Life Cycle Assessment (LCA) standard methodology as well, because general or other industries product LCA methodologies don't apply to ICT operators such as Telefónica, due to the unphysical nature of the ICT services and networks, which are realized by ICT goods and equipment. Due to the complexity and the lack of proper regulations, the scope of this methodology is focused on calculating the emissions in the "service provision phase" of the products and services we provide in our mobile and fixed operations worldwide. The scope considers basically our networks and the accesses they provide due to the complexity of making an evaluation of the emissions that a specific service generates and the compensation of dematerialization and emission savings that other services involve, such as teleconferencing, e-learning, e-billing etc. However, Telefónica has an objective to identify a business line on solutions that could reduce the energy consumption in customers. These solutions have embedded a carbon footprint related to the provision of this service and that are directly controlled by Telefónica, where our main challenge is to define the best way to allocate emissions to services. Another challenge is to improve the uncertainty ranges of calculations and try to avoid estimated values and count on real information.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

Our roadmap for emissions allocation in customers products and services is managed by the Office of Climate Change and Energy Efficiency on a global level. The main activities carried out and that will be developed in the future are:

Phase 1: Emissions allocation based on accesses and global emissions generation. In here we work with account managers to get the information from customers.
Phase 2: emissions estimations based on general assumptions and sector guidance.
Phase 3: emissions accounting per service provided and case studies with customers, based on ITU-T L1430 Methodology on Environmental Impact Assessment on ICT Projects

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Yes, I will provide data

SC4.1a

(SC4.1a) Give the overall percentage of total emissions, for all Scopes, that are covered by these products.

100

SC4.2a

(SC4.2a) Complete the following table for the goods/services for which you want to provide data.

Name of good/ service
Equivalent accesses

Description of good/ service
Integrated Telecommunication Service: Connecting a single device to the network (broadband, fixed, mobile or TV among others)

Type of product
Final

SKU (Stock Keeping Unit)
344334900

Total emissions in kg CO2e per unit
2.8

±% change from previous figure supplied
-18

Date of previous figure supplied
December 31 2018

Explanation of change
This indicator refers to the amount of accesses provided for Telefonica to our customers, our main service (connectivity), and thus the one that most impact in our carbon emissions. The global figure of carbon emissions per equivalent access decreased last year thanks to the implementation of measures in our scopes 1 and 2: Our Scope 1 emissions come from two main sources; fuel consumption in our lines of business and fugitive emissions of refrigerant gases from air conditioning units. We reduce them through different initiatives, such as replacing fuel-powered generators with renewable self-generation or substituting cooling units with free cooling or with other units with refrigerant gases with lower warming potential. Through these measures we have reduced this scope by 20% compared to 2015, which represents a reduction of 59,422 tonnes of CO2 eq emissions in 4 years. Scope 2 emissions, from power consumption, are the most significant in our activity. The actions we carry out to reduce them are based on implementing energy efficiency projects and on transitioning to consuming more renewable energy. Through these actions we reduced our Scope 2 emissions by 55% in 2019 compared to 2015, which represents a reduction of 889,820 tonnes of CO2 eq emissions in 4 years. Please note that we have recalculated Scope 1 and 2 emissions for 2018 because Central America is not included in the scope of the data.

Methods used to estimate lifecycle emissions
GHG Protocol Product Accounting & Reporting Standard

SC4.2b

(SC4.2b) Complete the following table with data for lifecycle stages of your goods and/or services.

Name of good/ service
Equivalent Accesses (Connections) LCA Stage. Telecommunications Networks Construction and Operation

Please select the scope
Scope 1 & 2

Please select the lifecycle stage
Operation of premises

Emissions at the lifecycle stage in kg CO2e per unit
2.8

Is this stage under your ownership or control?
Yes

Type of data used
Primary and secondary

Data quality
High

If you are verifying/assuring this product emission data, please tell us how
We verified externally our emissions related to our business, from network construction, maintenance and decommissioning. The verification process is performed through an external audit team (AENOR) in all countries where Telefónica has operational business.

SC4.2c

(SC4.2c) Please detail emissions reduction initiatives completed or planned for this product.

Name of good/ service	Initiative ID	Description of initiative	Completed or planned	Emission reductions in kg CO2e per unit
Equivalent accesses (Fixed, Internet and Data, Mobile, TV and others)	Initiative 1	In 2019 we carried out 189 initiatives in our networks and offices. Because of these, we reduced energy consumption by 313 GWh, and avoided the emission of more than 105 thousand tons of CO2eq.	Completed	0.44
Equivalent accesses (Fixed, Internet and Data, Mobile, TV and others)	Initiative 2	In 2019 a total of 4,637 GWh will come from renewable energy. This has enabled us to avoid the emission of around 1 million tonnes of CO2 equivalent. This shows that renewable energies are key to decarbonising our activity and reducing our carbon footprint in absolute terms. 100% of electricity consumption in Europe and Brazil already comes from renewable sources, 81.6% globally.	Completed	2.9

SC4.2d

(SC4.2d) Have any of the initiatives described in SC4.2c been driven by requesting CDP Supply Chain members?

No

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms