Full Corporate Questionnaire

Module 7

April 2025

About this reporting guidance

This document contains the 2025 CDP full corporate questionnaire and reporting guidance. It includes all the questions from the CDP corporate question bank, across all environmental issues, for all requesting authorities, and all sector-specific questions and guidance.

Please note that each discloser's route through the questionnaire is tailored according to their sector, the environmental issues they are disclosing on, and the organizations that have requested them to disclose. Therefore, not all questions in this document will be relevant for your organization.

When using our online portal, the questionnaire will be customized specifically for your organization, using the information you provide in the questionnaire setup process. Your responses to the questions may unlock further questions or modules in the questionnaire.

See our Introduction to the CDP Corporate Questionnaires and our Knowledge Base to find out more about the CDP questionnaires and our approach to disclosure.

Below each question in this document there is a 'Tags' section, which shows which disclosers will see the question. This is based on the organizations that have requested them to disclose and the information provided during their questionnaire setup:

1. Authority Type: who has requested the organization to disclose. For example, if a question is only shown to organizations who have been requested to disclose by a CDP Supply Chain member, this row of the table will say "Supply chain". Questions with "All requesters" in this field will be shown to all disclosers.
2. Environmental Issue: which environmental issues does the question relate to. For example, if a question is only shown to organizations disclosing on forests, this row of the table will say "F only".
3. Questionnaire Sector: details of any sector-specific content, based on CDP ACS classification. For example, if a question is only shown to financial services sector organizations, this row of the table will say "FS only".

In the example below, the "Tags" table indicates that the question will be shown to organizations who are responding to a request from a CDP Supply Chain member, are disclosing on water security, and have any CDP ACS sector other than financial services.

Tags		
Authority Type	Supply chain	
Environmental Issue (Theme)	Question level	W only
Questionnaire Sector	Question level	All (except FS)

Version

Version number	Release/Revision date	Revision summary
1.0	Released: April 2, 2025	Publication of the CDP Corporate Questionnaire guidance

Contents

Module 7: Environmental Performance – Climate Change

Module Overview	This module includes questions on emissions methodologies, exclusions, emissions inventory and breakdown, energy related activities, electricity transmission and distribution, production data and intensity & efficiency metrics. This module also asks about your organization's low-carbon energy targets, other climate-related targets, net-zero targets, details on emission reduction initiatives and low-carbon products. In addition, the module asks organization to disclose on their best available techniques, carbon capture & storage/ carbon capture utilisation (CCS/U), land management practices, their life cycle emissions, product level emissions and their project-based carbon credits.
Sector-specific content	Additional sector-specific questions for the following high-impact sectors: Agricultural commodities, Capital goods, Cement, Chemicals, Coal, Construction, Electric Utilities, Food, beverage & Tobacco, Metals & Mining, Oil & Gas, Paper & forestry, Real Estate, Steel, Transport original equipment manufacturers (OEMs), Transport services.

Emissions Methodology and Exclusions

Section Overview	A meaningful and consistent comparison of emissions over time is essential for managing climate-related issues. This section allows companies to describe any structural, boundary or methodological changes in the reporting year, and provide details of the standard, protocol, or methodology used to collect activity data and calculate emissions. The GHG Protocol is developing new Land Sector and Removals Guidance. This new guidance is currently in the pilot testing and review phase and will be finalized and published in 2024. Companies responding to the CDP's 2024 Questionnaire should report in accordance with existing GHG Protocol corporate standards and are not required to adhere to the draft Land Sector and Removals Guidance, as it is still under development.

(7.1) Is this your first year of reporting emissions data to CDP?

Question details	
Change from last year	No change
Rationale	Data users wish to understand year-on-year changes in emissions and this question allows organizations to indicate if they have previously reported emissions data to CDP. It drives follow-up questions on the details of changes to corporate structure, emissions accounting boundary or methodology, or reporting year.
Response options	Select one of the following options: • Yes • No

Requested content	General • If you have provided emissions data to CDP before, select "No". You will be asked to provide details of any changes (structural, methodological, boundary etc.) since your last disclosure in subsequent questions.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.1.1) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Question details	
Question dependencies	This question only appears if you select "No" in response to 7.1
Change from last year	No change

Rationale	Structural changes such as acquisitions, divestments, and mergers may have a significant impact on base year emissions due to the transfer of ownership or control of emitting activities from one organization to another. While a single structural change might not have a significant impact, the cumulative effect of a number of minor structural changes can result in a significant impact. This question provides data users with important context to any changes in emissions that may trigger base year emissions recalculation.
Response options	Please complete the following table:

1	2	3
Has there been a structural change?	Name of organization(s) acquired, divested from, or merged with	Details of structural change(s), including completion dates
Select all that apply: • Yes, an acquisition • Yes, a divestment • Yes, a merger • Yes, other structural change, please specify • No	Text field [maximum 500 characters]	Text field [maximum 2,500 characters]

[Fixed row]

Requested content	General • Consider structural changes (including minor ones) which: - occurred during the reporting year and are being accounted for in this disclosure (e.g., you acquired a company during the reporting year and are including the acquired company's emissions data in this CDP response). - occurred prior to the reporting year but are being accounted for in this disclosure (e.g., you acquired a company during the previous reporting year but excluded the acquired company from your CDP response in the previous reporting year in 7.4.1 due to a lack of data, and now have the data to include the acquired company's emissions data in this CDP response). Has there been a structural change? (column 1) • Select all structural change(s) your organization has recently undergone. If your organization has not undergone any structural change(s) in the reporting year and you are also not accounting for a structural change that occurred in the previous reporting year, select "No". Name of organization(s) acquired, divested from, or merged with (column 2) • This column only appears if any "Yes…" option is selected in column 1 Details of structural change(s), including completion dates (column 3) • This column only appears if any "Yes…" option is selected in column 1. • State the completion date of the structural change, and explain how the structural change affects the ownership or control of the emitting activities of the organizations affected by the change. • Where multiple structural changes have occurred, please identify which completion dates refer to each organization listed in column 2.

Explanation of terms	Structural changes: Structural changes include mergers, acquisitions, divestments, and outsourcing/insourcing of emitting activities (refer to chapter 5 of the GHG Protocol Corporate Standard for more information).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

Question details	
Question dependencies	This question only appears if you select "No" in response to 7.1.
Change from last year	No change
Rationale	Changes in emissions calculation methodology, reporting boundary approach, and/or reporting year could result in a significant impact on the base year emissions and compromise the consistency and relevance of a company's GHG emissions inventory. This question provides data users with important context to any changes in emissions that may trigger base year emissions recalculation.

1	2
Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Select all that apply: • Yes, a change in methodology • Yes, a change in boundary • Yes, a change in reporting year definition • No, but we have discovered significant errors in our previous response(s) • No	Text field [maximum 2,500 characters]

[Fixed row]

Requested content	Change(s) in methodology, boundary, and/or reporting year definition? (column 1) • Select all change(s) that occurred in the reporting year. If none of the changes occurred in the reporting year, select "No". • Further details on each of the options are provided below: - Change in methodology: This refers to changes that occurred due to modifications in the way that the emissions inventory is calculated, e.g., changes in emissions factors used or changes in methodology protocol followed.

	- Change in boundary: This refers to changes to the boundary used for your emissions inventory calculations, e.g., changing your consolidation approach from financial control to operational control. This option could also apply if you incorporated facilities, activities, or Scope 3 categories into your inventory in the reporting year that were excluded in previous years, or if you have insourced or outsourced an activity (see page 105 of the GHG Protocol Corporate Value Chain standard). - Change in reporting year definition: This refers to a change in how your organization defines the reporting year, e.g., changing from a reporting year which aligns with the calendar year to one which aligns with your fiscal year. - Discovery of significant errors: This refers to either the discovery of significant errors, or the discovery of a number of errors that are collectively significant. Details of methodology, boundary, and/or reporting year definition change(s) (column 2) • This column only appears if any "Yes…" option is selected in column 1. • Provide further details of the changes selected in column 1. For example, briefly describe how and why your emissions calculation methodology changed, and/or explain the context to any discovered errors. If new facilities have been included within your inventory, please list these, including their location. If you have included new Scope 3 categories in your inventory, please specify the categories added.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.1.3) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in 7.1.1 and/or 7.1.2 ?

Question details	
Question dependencies	This question only appears if any of the "Yes" options are selected in 7.1.1, or if any of the "Yes" options or "No, but we have discovered significant errors in our previous response" is selected in response to 7.1.2.
Change from last year	No change
Rationale	Significant changes (structural, methodological, boundary etc.) can alter a company's emissions profile, making meaningful historical comparisons difficult. To maintain consistency over time, base year emissions must be retroactively recalculated to reflect changes in the company that would otherwise compromise the consistency and relevance of a company's GHG emissions inventory. This question allows data users to understand whether the company has recalculated their base year emissions as a result of the changes or errors disclosed in 7.1.1 and 7.1.2.
Ambition	Companies recalculate base year emissions, and emissions from previous years to reflect changes that would otherwise compromise the consistency and relevance of the reported GHG emissions information.
Response options	Please complete the following table:

1	2	3	4
Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Select from: • Yes • No, because we have not evaluated whether the changes should trigger a base year recalculation • No, because the impact does not meet our significance threshold • No, because the operations acquired or divested did not exist in the base year • No, because we do not have the data yet and plan to recalculate next year	Select all that apply: • Scope 1 • Scope 2, location-based • Scope 2, market-based • Scope 3	Text field [maximum 2,500 characters]	Select from: • Yes • No

[Fixed row]

Requested content	General • The GHG Protocol Corporate Standard states that you should recalculate your base year emissions if your organization has changed structurally through acquisitions and/or divestments, the methodology or boundary used to calculate your emissions has changed, you have found significant errors in previous calculations, or if there have been changes to your excluded sources. This is so that your base year emissions can be directly compared with your current/reporting year emissions. • A company may, however, decide not to do this if the impact on emissions is not material or significant. It is up to each company to determine the threshold for what is considered significant or material by developing a base year recalculation policy. Organizations should apply their base year recalculation policy in a consistent manner (i.e. you should recalculate for both emissions increases and decreases). • Companies recalculating their base year emissions may also, as per the GHG Protocol, optionally recalculate GHG emissions data for past years between the base year and the reporting year. Base year recalculation (column 1) • Select "Yes" if your organization has recalculated your base year emissions as a result of the changes or errors disclosed in 7.1.1 and/or 7.1.2 . The basis of the recalculation should be consistent with your recalculation policy (as described in column 2) and should be reflected in the base year emissions figures you disclose in 7.5.

	• Select "No, because we have not evaluated a recalculation of our base year" if you do not have a base year recalculation policy, or you have not evaluated whether the changes or errors identified in 7.1.1 and/or 7.1.2 should trigger a base year recalculation as per your policy. • Select "No, because the impact does not meet our significance threshold" if you have a base year recalculation policy and you have evaluated that the changes or errors identified in 7.1.1 and/or 7.1.2 do not meet your policy's significance threshold and therefore the impact on emissions is deemed to be non-material. • Select "No, because we do not have the data yet and plan to recalculate next year" if your organization has merged with or acquired a company and you do not yet have the emissions data for the organization you have merged with or acquired. As per the GHG Protocol Corporate standard, "if it is not possible to make a recalculation in the year of the structural change (e.g. due to lack of data for an acquired company), the recalculation may be carried out the following year". In this scenario, the emissions from the company your organization has merged with or acquired should be reported as an excluded source of emissions in 7.4.1 in this CDP response. Scope(s) recalculated (column 2) • This column only appears if you select "Yes" in column 1 "Base year recalculation". • Depending on the change(s) that have triggered a base year calculation (as disclosed in 7.1.1 and/or 7.1.2), it may not be necessary to recalculate your organization's base year emissions for all scopes. For example, you may have found a significant error in your calculation of a single category of scope 3 emissions. • Indicate in this column the scope(s) for which you have recalculated your base year emissions. Base year emissions recalculation policy, including significance threshold (column 3) • Describe your organization's base year recalculation policy, and if "Yes" was selected in column 1, clearly articulate the basis and context of the recalculation. • Ensure to include the significance threshold applied for determining base year recalculations. Past years' recalculation (column 4) • Select "Yes" if, due to changes or errors reported in 7.1.1 and/or 7.5.2, in addition to your base year recalculation you have also recalculated emissions data for past years, and are restating them in 7.6, 7.7, and 7.8. • If you select "Yes" in this column, ensure you have also selected "Yes" in column 3 of 1.4 and indicated the number of past years of emissions you wish to restate for each Scope in columns 4-6 of 1.4.
Explanation of terms	Significance threshold: As noted on page 35 of the GHG Protocol Corporate Standard, a significance threshold is a "qualitative and/or quantitative criterion used to define any significant change to the data, inventory boundary, methods, or any other relevant factors. It is the responsibility of the company to determine the significance threshold that triggers base year emissions recalculation and to disclose it."

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Quetionnaire Sector	Question level	All

(7.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Question details	
Change from last year	Modified question
Rationale	CDP data users need to understand what methods have been used to calculate emissions.
Response options	Select all that apply from the following options: • ABI Energia Linee Guida • Act on the Rational Use of Energy • American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009 • Australia - National Greenhouse and Energy Reporting Act • Bilan Carbone, ABC • Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019 • ENCORD: Construction CO_2e Measurement Protocol • Environment Canada, Sulphur hexafluoride (SF6) Emission Estimation and Reporting Protocol for Electric Utilities • Environment Canada, Aluminum Production, Guidance Manual for Estimating Greenhouse Gas Emissions • Environment Canada, Base Metals Smelting/Refining, Guidance Manual for Estimating Greenhouse Gas Emissions • Environment Canada, Cement Production, Guidance Manual for Estimating Greenhouse Gas Emissions • Environment Canada, Primary Iron and Steel Production, Guidance Manual for Estimating Greenhouse Gas Emissions • Environment Canada, Lime Production, Guidance Manual for Estimating Greenhouse Gas Emissions • Environment Canada, Primary Magnesium Production and Casting, Guidance Manual for Estimating Greenhouse Gas Emissions • Environment Canada, Metal Mining, Guidance Manual for Estimating Greenhouse Gas Emissions • EPRA (European Public Real Estate Association) guidelines, 2011 • EPRA (European Public Real Estate Association) Sustainability Best Practice recommendations Guidelines, 2017 • European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations • European Union Emissions Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for aircraft operators • Global GHG Accounting and Reporting Standard for the Financial Industry (PCAF) • Hong Kong Environmental Protection Department, Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings, 2010 • ICLEI Local Government GHG Protocol • IEA CO_2 Emissions from Fuel Combustion • International Wine Industry Greenhouse Gas Protocol and Accounting Tool

	• 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories • IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011 • ISO 14064-1 • Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superseded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment) • Korea GHG and Energy Target Management System Operating Guidelines • New Zealand - Guidance for Voluntary, Corporate Greenhouse Gas Reporting • Regional Greenhouse Gas Initiative (RGGI) Model Rule • Smart Freight Centre: GLEC Framework for Logistics Emissions Methodologies • Taiwan - GHG Reduction Act • Thailand Greenhouse Gas Management Organization: The National Guideline Carbon Footprint for organization • The Climate Registry: Electric Power Sector (EPS) Protocol • The Climate Registry: General Reporting Protocol • The Climate Registry: Local Government Operations (LGO) Protocol • The Climate Registry: Oil & Gas Protocol • The GHG Indicator: UNEP Guidelines for Calculating Greenhouse Gas Emissions for Businesses and Non-Commercial Organizations • The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) • The Greenhouse Gas Protocol Agricultural Guidance: Interpreting the Corporate Accounting and Reporting Standard for the Agricultural Sector • The Greenhouse Gas Protocol: Public Sector Standard • The Greenhouse Gas Protocol: Scope 2 Guidance • The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard • The Tokyo Cap-and Trade Program • US EPA Center for Corporate Climate Leadership: Direct Fugitive Emissions from Refrigeration, Air Conditioning, Fire Suppression, and Industrial Gases • US EPA Center for Corporate Climate Leadership: Indirect Emissions From Events and Conferences • US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity • US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources • US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources • US EPA Mandatory Greenhouse Gas Reporting Rule • US EPA Emissions & Generation Resource Integrated Database (eGRID) • VfU (Verein fur Umweltmanagement) Indicators Standard • World Steel Association CO2 emissions data collection guidelines • Other, please specify

Requested content	General • There are a variety of standards, methodologies, and protocols available for collecting and reporting GHG data, but the large majority of companies refer to the GHG Protocol. • The appropriateness of an emissions calculation methodology should be determined on a case-by-case basis, and it is good practice for the methods used to estimate emissions and the underlying data to be externally verified.

	• CDP makes no judgments on standards, protocols or methodologies applied by companies to produce their inventories. However, we expect that any tool used will follow the best practice and observe important aspects such as the accuracy and completeness principles of standards similar to the GHG Protocol. CDP encourages companies to use the GHG Protocol Standards when national standards are not specified, including both the Corporate Standard and the Corporate Value Chain (Scope 3) Standard. • If the metholology(ies) you have used is not listed, select "Other, please specify;" and indicate the methodology(ies) used.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Change from last year	No change
Rationale	The purpose of this question is to allow companies to disclose their approach to calculating their Scope 2 emissions. This is particularly relevant when considering market-based Scope 2 emissions, as it is important to differentiate between companies that have not reported a market-based figure as they do not have operations where there are those contractual instruments, and those companies that do have operations where there are contractual instruments but have chosen not to disclose a market-based figure. CDP asks this question to enable accurate comparability across companies.
Response options	Please complete the following table:

Scope 2, location-based	Scope 2, market-based	Comment
Select from: • We are reporting a Scope 2, location-based figure • We are not reporting a Scope 2, location-based figure	Select from: • We are reporting a Scope 2, market-based figure • We have no operations where we are able to access electricity supplier emission factors or residual emission factors and are unable to report a Scope 2, market-based figure • We have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure	Text field [maximum 2,400 characters]

[Fixed row]

Requested content	General • The GHG Protocol Scope 2 Guidance was published in January 2015. Part of the requirements of the guidance is that companies shall account for their Scope 2 emissions using two

	methodologies: a location-based method and a market-based method. The market-based method is for those companies who have any operations in markets providing product- or supplier-specific data in the form of contractual instruments. If this is not applicable to your company, you only need to provide one location-based figure. • Per the GHG Protocol Corporate Standard, a contractual instrument is "any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation, or for unbundled attribute claims." Different markets will have different contractual instruments, which can include energy attribute certificates, direct contracts such as PPAs, and supplier-specific emission rates. • It is important to consider the definition of contractual instruments when determining whether your company needs to calculate a market-based figure. If your company can access emissions factors from your energy supplier for any of your operations, you are required to calculate and report a market-based figure. Therefore, when responding to this question, if you do have operations where there are contracts such as RECs and Guarantees of Origin, supplier specific emissions factors, or a residual emissions factor such as in the US and Europe – regardless of whether or not you purchase them – then you should not select "We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure". For full details please view the GHG Protocol Scope 2 Guidance. You can also reference CDP's Technical Note on Accounting of Scope 2 emissions. • For the purpose of CDP reporting, to claim the use of renewable electricity for market-based figures, companies must source renewable electricity from within the boundary of the market in which they are consuming the electricity (i.e. comply with the market boundary criteria). Please refer to CDP's Technical Note on Accounting of Scope 2 emissions for further information.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Question details	
Change from last year	Modified guidance
Rationale	In some cases it can be difficult to gather data for all sources. Circumstances where this might be the case include sources in countries/areas or small facilities where data acquisition is difficult or unreliable. Structural changes to the organization including mergers, acquisitions and divestments can also be reasons where emissions data are not included in your disclosure. This question enables companies to report where these sources are not included in the disclosure and thus provides data users transparency into reported emissions inventories.
Ambition	Companies report emissions from all sources, and are transparent on all exclusions.

Response options	Select one of the following options: • Yes • No

Requested content	General
	• Identify sources that would normally be within the consolidation boundary you have identified for your disclosure in6.1 (i.e. financial control, operational control, equity share or other) but for which greenhouse gases are not reported in this disclosure. Excluded sources may be in a particular country/area or represent a number of very small facilities making it difficult to gather data.
	• Common reasons for exclusions, both relevant or not relevant, can include the following:
	  ○ Incomplete information for the period in question;
	  ○ Structural changes to the organization including mergers, acquisitions and divestments;
	  ○ Outsourcing and/or insourcing of activities; and
	  ○ Unreliable information.
	• The GHG Protocol's Corporate Accounting and Reporting Standard notes on the reporting of exclusions (page 9) that "Specific exclusions…need to be clearly identified and justified, assumptions disclosed, and appropriate references provided for the methodologies applied and the data sources used. The information should be sufficient to enable a third party to derive the same results if provided with the same source data."
	• If you selected 'No' in column 1 "Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?' of 1.5 and there are entities included in your consolidated accounting group that are not included in your reporting boundary, select 'Yes' and provide details on the exclusion of these entities in 7.4.1.Only select "No" if your answers to 7.6, 7.7, and 7.8 represent the total gross global emissions of all the companies, businesses, other entities or groups determined by your consolidation approach (provided in 6.1).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.4.1) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.4.
Change from last year	Modified question
Rationale	In some cases it can be difficult to gather data for all sources. Circumstances where this might be the case include sources in countries/areas or small facilities where data acquisition is difficult or unreliable. Structural changes to the organization including mergers, acquisitions and divestments can also be reasons where emissions data are not included in your disclosure. This question enables companies to report where these sources are not included in the disclosure and thus provides data users transparency into reported emissions inventories.

Ambition	Companies report emissions from all sources, and are transparent on all exclusions.

1	2	3	4	5	6
Source of excluded emissions	Scope(s) or Scope 3 category(ies)	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source	Relevance of Scope 3 emissions from this source
Text field [maximum 2,500 characters]	Select all that apply: • Scope 1 • Scope 2 (location-based) • Scope 2 (market-based) • Scope 3: Purchased goods and services • Scope 3: Capital goods • Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) • Scope 3: Upstream transportation and distribution • Scope 3: Waste generated in operations • Scope 3: Business travel • Scope 3: Employee commuting • Scope 3: Upstream leased assets • Scope 3: Downstream transportation and distribution • Scope 3: Processing of sold products • Scope 3: Use of sold products • Scope 3: End-of-life treatment of sold products • Scope 3: Downstream leased assets • Scope 3: Franchises • Scope 3: Investments [hidden for FS sector companies] • Scope 3: Other (upstream) • Scope 3: Other (downstream)	Select from: • Emissions are not relevant • Emissions are relevant but not yet calculated • Emissions are relevant and calculated, but not disclosed • Emissions excluded due to a recent acquisition or merger • Emissions are not evaluated	Select from: • Emissions are not relevant • Emissions are relevant but not yet calculated • Emissions are relevant and calculated, but not disclosed • Emissions excluded due to a recent acquisition or merger • Emissions are not evaluated	Select from: • Emissions are not relevant • Emissions are relevant but not yet calculated • Emissions are relevant and calculated, but not disclosed • Emissions excluded due to a recent acquisition or merger • Emissions are not evaluated	Select from: • Emissions are not relevant • Emissions are relevant but not yet calculated • Emissions are relevant and calculated, but not disclosed • Emissions excluded due to a recent acquisition or merger • Emissions are not evaluated

7	8	9	10	11
Date of completion of acquisition or merger	Estimated percentage of total Scope 1+2 emissions this excluded source represents	Estimated percentage of total Scope 3 emissions this excluded source represents	Explain why this source is excluded	Explain how you estimated the percentage of emissions this excluded source represents

[DD/MM/YYYY]	Numeric field [enter a value of 0-100 with 1 decimal place]	Numeric field [enter a value of 0-100 with 1 decimal place]	Text field [maximum 2,500 characters]	Text field [maximum 2,500 characters]

[Add row]

Requested content	Source of excluded emissions (column 1) • Use this text field to name and briefly describe the source you are excluding. E.g. a geographic region, business activity, or type of facility. • If the source you are excluding is an organization (e.g. one of your subsidiaries or franchises), please state the full legal entity name of the organization in this column. • Your response to this question should be consistent with the boundary you have used to calculate and report emissions in 7.6, 7.7, and 7.8. Scope(s) or Scope 3 category(ies) (column 2) • Select the Scope(s) and/or Scope 3 category(ies) of emissions from which you are excluding emissions from this source in your response to questions 7.6, 7.7 and/or 7.8. Relevance of Scope 1 emissions from this source (column 3) • This column is presented if you select "Scope 1" in response to column 2 "Scope(s) or Scope 3 category(ies)". • Emissions are not relevant – select this option if you have excluded Scope 1 emissions which you have identified as <u>not</u> relevant from this source. • Emissions are relevant but not yet calculated – select this option if you have excluded Scope 1 emissions from this source, you have identified these emissions as relevant, but you have not calculated them. • Emissions from this source are relevant and have been calculated, but are not disclosed – select this option if you have excluded from your CDP response Scope 1 emissions from this source that you have calculated and identified as relevant. • Emissions excluded due to a recent acquisition or merger – select this option if you have excluded Scope 1 emissions from this source due to an acquisition or merger that has taken place during the reporting period. • Emissions are not evaluated – select this option if you have excluded Scope 1 emissions from this source but have not evaluated the relevance of these emissions. Relevance of Scope 2 (location-based or market-based) emissions from this source (column 4 and 5) • This column is presented if you select "Scope 2 (location-based)" (column 4) and/or "Scope 2 (market-based)" (column 5) in response to column 2 "Scope(s) or Scope 3 category(ies)". • Emissions are not relevant – select this option if you have excluded Scope 2 emissions which you have identified as <u>not</u> relevant from this source. • Emissions are relevant but not yet calculated – select this option if you have excluded Scope 2 emissions from this source, you have identified these emissions as relevant, but you have not calculated them. • Emissions from this source are relevant and have been calculated, but are not disclosed – select this option if you have excluded from your CDP response Scope 2 emissions from this source that you have calculated and identified as relevant.

	• Emissions excluded due to a recent acquisition or merger – select this option if you have excluded Scope 2 emissions from this source due to an acquisition or merger that has taken place during the reporting period. • Emissions are not evaluated – select this option if you have excluded Scope 2 emissions from this source but have not evaluated the relevance of these emissions. Relevance of Scope 3 emissions from this source (column 6) • This column is presented if you select a Scope 3 category in response to column 2 "Scope(s) or Scope 3 category(ies)". • Emissions are not relevant – select this option if you have excluded Scope 3 emissions which you have identified as not relevant from this source. • Emissions are relevant but not yet calculated – select this option if you have excluded Scope 3 emissions from this source, you have identified these emissions as relevant, but you have not calculated them. • Emissions from this source are relevant and have been calculated, but are not disclosed – select this option if you have excluded from your CDP response Scope 3 emissions from this source that you have calculated and identified as relevant. • Emissions excluded due to a recent acquisition or merger – select this option if you have excluded Scope 3 emissions from this source due to an acquisition or merger that has taken place during the reporting period. This may only be used to exclude emissions from an acquired or merged organization's value chain, not your company's. For example, if you have acquired a company, you may select this option to report exclusions from the acquired company's value chain (i.e. their Scope 3 emissions) but not your own value chain. For exclusions from your own value chain, select the most relevant other dropdown. • Emissions are not evaluated – select this option if you have excluded Scope 3 emissions from this source but have not evaluated the relevance of these emissions. Date of completion of acquisition or merger (column 7) • This column is presented if "Emissions are excluded due to a recent acquisition or merger" is selected in column 3, 4, 5, or 6. • If the completion date of the acquisition or merger has not yet passed, you should report the final date of your reporting year (as disclosed in question 1.4). Estimated percentage of total Scope 1+2 emissions this excluded source represents (column 8) • This column is presented if any option other than "Emissions excluded due to recent acquisition or merger", or "Emissions are not evaluated" is selected in column 3, and in either column 4 or 5. • This figure should be estimated using the following formula: o Estimated percentage of total Scope 1+2 emissions the excluded source represents = 100% x (Estimated Scope 1+2 emissions the excluded source represents) / (Total gross Scope 1+2 emissions reported in 7.6 and 7.7) • If you have calculated the Scope 1+2 emissions from the excluded source, use the formula above to provide the percentage of your total, gross, global Scope 1+2 emissions in the reporting year that the excluded source represents. • If you have not yet calculated Scope 1+2 emissions from the excluded source, or if activity data is unavailable, you may estimate the Scope 1+2 emissions for the excluded source. You should choose an estimation approach that is appropriate to your sector, organization, the excluded source, and the data available. For example, absolute Scope 1+2 emissions could be estimated using the Scope 1+2 emissions intensity of a similar

	source for which data is available, such as an industry-average emissions intensity for the type of source excluded per e.g. unit revenue, floor area, or FTE employee, or using proxy data and rough estimates. Ensure to be transparent in column 11 with regards to the estimation approach (what is estimated and how), and the data used for the estimation. Estimated percentage of total Scope 3 emissions this excluded source represents (column 9) • This column is presented if any option other than "Emissions excluded due to recent acquisition or merger" or "Emissions are not evaluated" is selected in column 6. • This figure should be estimated using the following formula: o Estimated percentage of total Scope 3 emissions the excluded source represents = 100% x (Estimated Scope 3 emissions the excluded source represents) / (Total gross Scope 3 emissions reported in 7.8) • If you have not yet calculated Scope 3 emissions from the excluded source, or if activity data is unavailable, you may estimate the Scope 3 emissions for the excluded source. You should choose an estimation approach that is appropriate to your sector, organization, the excluded source, and the data available. For example, absolute Scope 3 emissions could be estimated using the Scope 3 emissions intensity of a similar source for which data is available, such as an industry-average emissions intensity for the type of source excluded per e.g. unit revenue, floor area, or FTE employee, or using proxy data and rough estimates. Ensure to be transparent in column 11 with regards to the estimation approach (what is estimated and how), and the data used for the estimation. Explain why this source is excluded (column 10) • Use this text field to describe why the source is excluded and its significance. Explain how you estimated the percentage of emissions this excluded source represents (column 11) • This column is presented if any option other than "Emissions excluded due to recent acquisition or merger" or "Emissions are not evaluated" is selected in column 3, 4, 5 or 6. • Explain how you calculated the estimated percentage of your total, gross, global Scope 1+2, and Scope 3 emissions that the exclusion represents, including details of any emissions estimations and the estimation approaches used. • State whether you used the location-based or market-based Scope 2 figure from 7.7 in your calculation of the figure reported in column 8. • Provide a level of confidence for your estimations, and indicate whether the figures have been verified by a third party. Note for financial services companies: For financial services companies responding to the full version of the questionnaire, Scope 3 Category 15, "Investments", has been removed from 7.4.1 and is requested to be disclosed in 12.1.1. as financed emissions instead.
Example response	Worked example of excluded sources In this instance presume that the company has selected "Operational control" in 6.1. Note that this example company response would be ineligible for the climate change A List due to excluded, relevant emissions and unevaluated, potentially relevant emissions. (see below)

Additional information	Relevance in GHG reporting
	
	• The GHG Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard (page 24) provides the following definition of relevance for GHG reporting: "A relevant GHG report contains the information that users – both internal and external to the company – need for their decision making. Companies should use the principle of relevance when determining whether to exclude any activities from the inventory boundary. Companies should also use the principle of relevance as a guide when selecting data sources. Companies should collect data of sufficient quality to ensure that the inventory is relevant (i.e., that it appropriately reflects the GHG emissions of the company and serves the decision-making needs of users) (...) and should not exclude any activities from the inventory that would compromise the relevance of the reported inventory."
	• A practical rule of thumb often applied to evaluate the relevance of an emissions' source or activity is to consider the sources that contribute to 95% of the emissions inventory once sources are listed by the size of emissions. This rule is of practical value in particular when a low number of sources contribute to a large proportion of the total emissions while a large number of sources contribute to a small percentage of emissions. In order to utilize the 95% threshold, the emissions from all sources or activities need to be quantified or estimated to ensure they meet this threshold. Relevance should apply not only to the size of emissions, but also other criteria, such as the potential to drive emissions reductions, the cost-benefit of gathering the data, stakeholder expectations, and potential uses of the data.
	• Relevance of emissions should not be limited to sustainability topics that have a significant financial impact on your organization, or "materiality".
	• Examples of circumstances where the reasons for excluding known emissions sources from the GHG statement may not be reasonable include:
	  ○ The entity has relevant Scope 1 emissions but only includes Scope 2 emissions in its CDP disclosure.
	  ○ The boundary has been defined, but particular geographies within the boundary are not being reported although they represent relevant emissions; and
	  ○ The emissions reported exclude business divisions/areas of business with relevant emissions which are only a small proportion of the total emissions included in the GHG statement (i.e., once emissions are quantified at a sufficient level of quality they should be included in the inventory, even if they represent only a small share of the total).
	
	Methodologies for estimating emissions from excluded sources
	
	• Where verifiable data is not available, organizations may estimate emissions data by:
	  ○ Direct comparison: using data from another comparable time period to fill the gap for the excluded source e.g. emissions from the same time period in another year.
	  ○ Pro-rata extrapolation: using average data from one period of time to estimate data for another shorter period e.g. using average daily emissions from 1st January to 30th November to estimate emissions for 1st to 31st December.Benchmarking: using emissions or activity data for one asset or business activity as a proxy to estimate emissions or activity data for another asset or business activity e.g. using the annual emissions of one office to estimate emissions from another office of similar size, age or build.

1	2	3	4	5	6	7

Source of excluded emissions	Scope(s) or Scope 3 category(ies)	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source	Relevance of Scope 3 emissions from this source	Date of completion of acquisition or merger
Four manufacturing facilities in Asia	Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)	Emissions are not evaluated	Emissions are relevant but not yet calculated.	Emissions are relevant but not yet calculated.	Emissions are relevant but not yet calculated.	n/a

8	9	10	11
Estimated percentage of total Scope 1+2 emissions this excluded source represents	Estimated percentage of total Scope 3 emissions this excluded source represents	Explain why this source is excluded	Explain how you estimated the percentage of emissions this excluded source represents
21%	17%	At present, we are only able to disclose our emissions from our European operations, but not our Asian operations. In terms of Scope 1 emissions, we are aware that our manufacturing operations may be associated with leakage of refrigerants, however we have not yet had the capacity to investigate and evaluate this thoroughly. In terms of Scope 2 emissions, we do have records of how much electricity we purchase in our four Asian facilities, but we have not yet adopted an approach to account for the associated Scope 2 emissions. As we have operations in Europe, where there are contractual instruments, we have also calculated a market-based figure. While there are no contractual instruments for our Asian operations, we are still unable to provide a market-based figure for those operations. In terms of Scope 3 emissions, we do not have access to data on the emissions created by	We used a benchmarking approach to estimate the emissions for our four manufacturing facilities in Asia. We have ten European facilities of a similar size, age and build, for which we have calculated our scope 1 and 2 location-based emissions. We used their emissions data as a proxy to estimate the emissions of the four Asian facilities based on the floor area. Total scope 1 + 2 (location-based) for 10 European factories = 150,000tCO2e Total floor area for 10 comparable European facilities = 4000m2 Total floor area for 4 Asian facilities = 1000m2 Estimated emissions for 4 Asian facilities = 150,000 x (1000/4000) = 37,500tCO2e Estimated percentage of total Scope 1+2 emissions = 100% x 37,500/(37,500+150,000) = 20%

		the production and transportation of fuel.	Estimated percentage of total Scope 3 emissions = 100% x 13,700/80,000 = 17%

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

Scope 1, 2, and 3 Emissions Inventory

Section Overview	Reporting emissions is essential for understanding and reducing harmful climate impacts . This section requests details of your emissions data, and is aligned with TCFD Metrics & Targets recommended disclosure b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. This section also requests details on the verification status that applies to organizations' reported Scope 1, 2 and 3 emissions.

(7.5) Provide your base year and base year emissions.

Question details	
Change from last year	Minor change
Rationale	A meaningful and consistent comparison of emissions over time requires that organizations set a performance datum with which to compare current emissions.
Ambition	Companies disclose that their Scope 1 emissions in the reporting year have reduced in line with a 1.5 °C-aligned pathway.

0	1	2	3
Scope	Base year end	Base year emissions (metric tons CO_2e)	Methodological details
Scope 1	Date field [enter a date between 01/01/1990-19/11/2025]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Text field [maximum 2,500 characters]

Scope 2 (location-based)			
Scope 2 (market-based)			
Scope 3 category 1: Purchased goods and services			
Scope 3 category 2: Capital goods			
Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)			
Scope 3 category 4: Upstream transportation and distribution			
Scope 3 category 5: Waste generated in operations			
Scope 3 category 6: Business travel			
Scope 3 category 7: Employee commuting			
Scope 3 category 8: Upstream leased assets			
Scope 3 category 9: Downstream transportation and distribution			
Scope 3 category 10: Processing of sold products			
Scope 3 category 11: Use of sold products			
Scope 3 category 12: End of life treatment of sold products			
Scope 3 category 13: Downstream leased assets			

Scope 3 category 14: Franchises			
Scope 3 category 15: Investments [row hidden for FS sector]			
Scope 3: Other (upstream)			
Scope 3: Other (downstream)			

[Fixed row]

Requested content	General • This question requests a base year for your greenhouse gas inventory. This may be the same as the base year for your targets, but not necessarily. • If your company has measured its emissions in the past, you can use the oldest year for which it has available emissions information – preferably verified or assured – as your base year. If your company is measuring its emissions for the first time, choose the current reporting year as the base year. • Companies should ensure that the base year inventory includes both a location-based and market-based Scope 2 total, if applicable and feasible. This ensures "like with like" comparisons over time. If the Scope 2 base year chosen was calculated only according to the location-based method, you should also recalculate and report a market-based total if contractual information or residual mix totals are available for the base year. If not, you should state in the comment field that the location-based result has been used as a proxy since a market-based figure cannot be calculated. • As per the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, companies should use a single base year for Scope 1, Scope 2, and Scope 3 emissions (for all calculated Scope 3 categories). This is to enable comprehensive and consistent tracking of total emissions across all three Scopes over time. However, companies with already established base years for Scope 1 and Scope 2 emissions may use a more recent year for the Scope 3 base year (e.g., the first year for which you have complete and reliable Scope 3 emissions data). • Establishing a single base year for all Scope 3 categories simplifies Scope 3 emissions tracking and allows clearer communication of GHG emissions to data users. • If you are using an average of annual emissions over several consecutive years for your base year emissions, enter the last date in the period, then provide the time period over which the average was calculated in column 4 and explain that the emissions figure reported is an average. • If you have not calculated base year emissions for a particular Scope 3 category, leave the respective row blank. • The "Scope 2 (market based)" row only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3. Base year end (column 1) • The start date will be automatically assumed to be exactly 365 days before the listed date. For example, if you enter an end date of 31/12/2023, your start date will be automatically assumed to be 01/01/2023. Methodological details (column 3)

	• Include at least the measurement approach, emissions factors, inputs, and assumptions used to measure your emissions, and a rationale for your choices.
Requested content – [sector] (if applicable)	Note for financial services sector companies: • For financial services sector companies responding to the full version of the questionnaire, Scope 3 Category 15 "Investments" emissions has been pulled out of question 7.5 and is requested to be disclosed in 12.1.1. As the majority of emissions occur in relation to financial products and services and/or investments, financed emissions, or Scope 3 Category 15 "Investments" emissions as defined by the GHG Protocol is the most relevant category to financial services organizations. • Thus, Row 15 "Investments" is hidden in this question, and this information should be disclosed in 12.1.1 instead.
Additional information	• Setting a base year: Setting a base year is an essential GHG accounting step that a company must take to be able to observe trends in its emissions information. According to the GHG Protocol Corporate Standard, a base year is "a historic datum (a specific year or an average over multiple years) against which a company's emissions are tracked over time." See Chapter 5 of the GHG Protocol Corporate Standard for more information on setting and recalculating a base year. • Recalculation criteria for Scope 3 emissions base year: Table 9.5 (p.105)from the Corporate Value Chain (Scope 3) Accounting and Reporting Standard provides additional guidance for determining the need for Scope 3 base year recalculation due to changes in insourcing/outsourcing.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Change from last year	Modified guidance
Rationale	Reporting emissions is a prerequisite to understanding and reducing negative environmental impacts. This question aims to ensure organizations are measuring their carbon footprints from direct emissions.
Ambition	Organizations disclose that their Scope 1 emissions in the reporting year have reduced in line with a 1.5 °C-aligned pathway.

0	1	2	3
Year	Gross global Scope 1 emissions (metric tons CO2e)	End date	Methodological details
Reporting year	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	[This cell is not seen in ORS]	Text field [maximum 2,500 characters]

Past year 1 [Only appears if "1 year", "2 years", "3 years", "4 years" or "5 years" is selected in column 4 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	
Past year 2 [Only appears if "2 years", "3 years", "4 years" or "5 years" is selected in column 4 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	
Past year 3 [Only appears if "3 years", "4 years" or "5 years" is selected in column 4 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	
Past year 4 [Only appears if "4 years" or "5 years" is selected in column 4 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	
Past year 5 [Only appears if "5 years" is selected in column 4 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	

[Fixed row]

Requested content	General • Emissions must be reported in gross, not net figures. Therefore, negative numbers are not allowed. • Putting in zero suggests that you have measured your emissions and that they are equal to zero. • Rows in this question are presented depending on your selection in column 4 "Number of past reporting years you will be providing Scope 1 emissions data for" of question 1.4. • Gross emissions are requested so that data users can account for GHG emissions from sources owned or controlled by your organization before any reductions for offs are made, as per the GHG Protocol Corporate Standard. This transparency is meant to provide users with the most accurate portrayal of the emissions created within your company's boundary. • Scope 1 emissions should be reported in metric tons of CO2e. Common conversion factors are included in the Technical Note "Units of Measure Conversions". • Special requirements for carbon sequestration, captured & stored and transferred CO2, transfer in – transfer out, and enhanced oil recovery are explained in the Technical Note "Special conditions for reporting Scope 1 emissions". • Emissions estimates are acceptable, as long as there is transparency with regards to the estimation approach (what is estimated and how) and the data used for the analysis is adequate to support the objectives of the inventory. If applicable to your organization's reporting of Scope 1 emissions, outline this in the methodological details column. • For further guidance on leased assets, consult the Greenhouse Gas Protocol guidance on categorizing emissions from leased assets. End date (column 2) • The start date of each past year will be automatically assumed to be exactly 365 days before the listed date. For example, if you enter an end date of 31/12/2023, your start date will be automatically assumed to be 01/01/2023. Methodological details (column 3) • Include the measurement approach, emissions factors, inputs, and assumptions used to measure your Scope 1 emissions, and a rationale for your choices. Note for first-time responders

	• If you are a first-time responder, provide gross global Scope 1 emissions data for the current reporting year and up to five years prior to the current reporting year.
	• The number of past year rows that will appear is dependent on your selection in column 4 "Number of past reporting years you will be providing Scope 1 emissions data for" of 1.4.
	• Input the gross global Scope 1 emissions data for the current reporting year in the first row and work backwards from the current reporting year.
	• Ensure that the reporting period represents only one full year that has already passed. Reporting periods should not be in the future. This information is important for others to understand the time dimension of your disclosure.
	• Use the methodological details column to report relevant information regarding your organization's past Scope 1 emissions data.
	
	Note for restatements
	• If you have chosen to restate your organization's gross global Scope 1 emissions data previously supplied to CDP (as indicated in column 4 "Number of past reporting years you will be providing Scope 1 emissions data for " of 1.4), you may do so here.
	• The number of past year rows that will appear is dependent on your selection in column 4 "Number of past reporting years you will be providing Scope 1 emissions data for" of 1.4.
	• Reporting recalculated figures for these years is optional.
	• All years Scope 1 emissions data needs to be entered in reverse order, with the current reporting year first, i.e. you should first input the current reporting year emissions data and work backwards from the most recent reporting year.
	• Ensure that the reporting period represents only one full year that has already passed. Reporting periods should not be in the future. This information is important for others to understand the time dimension of your disclosure.
	• Use the methodological details column to identify that this is restated data and the reason for the restatement.
	• For more information on restatements see CDP's technical note on restatements here.
	
	Note on biogas:
	• Carbon dioxide emitted from the combustion of biomass/biofuel or fermentation should not be included in your response to question 7.6 but instead should be reported in 7.12.
	• When gas is sourced from a shared pipeline network with multiple sources including both renewable and non-renewable sources, certificates are required to demonstrate the renewable origin of gas (i.e. "certified biogas" or "green gas certificates") and the following conditions need to be met:
	  ○ The company combusts gas sourced from a shared gas pipeline network;
	  ○ It also owns or purchases green gas certificates that originated from one of the gas producers on the pipeline network – these need not necessarily be purchased directly from the biogas producers;
	  ○ The company permanently retains the environmental attributes of the gas consumption, including any energy attribute certificates.
	• The appropriateness of using market-based instruments such as green gas certificates for the emissions inventories is a contested issue. The GHG Protocol is undertaking a process to determine the need and scope for additional guidance building on the existing set of corporate GHG accounting and reporting standards for Scope 1, Scope 2, and Scope 3 emissions. As part of this process, the GHG Protocol plans to holistically examine the appropriateness of market-based accounting methods across sectors, end-uses, and scopes. CDP intends to align with any revisions to the GHG Protocol standards and guidance resulting from this process, including on the use of green gas certificates for emissions accounting.

	• While the GHG Protocol process is ongoing, companies are encouraged to make their own judgement of the appropriateness of using green gas certificates in their emissions accounting, for example by consulting with their auditors and consider rules provided by relevant target-setting programs or applicable regulatory schemes. Companies should be transparent about any such use of green gas certificates by providing relevant details in column 4 "Methodological details" in question 7.6, and in 7.12.1. • If your organization uses biogas that is sourced from a dedicated pipeline and the source is renewable, then you do not need certificates to prove the renewable origin. • For more information on the use of green gas certificates refer to CDP Technical Note: Accounting of Scope 2 emissions.
Requested content – [sector] (if applicable)	Note for agricultural sector companies: • Direct emissions from agricultural/forestry, processing/manufacturing and/or distribution activities should be reported as part of Scope 1 emissions in this question.
Explanation of terms	Biogas: A gas derived principally from the anaerobic fermentation of biomass and solid wastes and combusted to produce heat and/or power. Included in this category are landfill gas and sludge gas (sewage gas and gas from animal slurries) and other biogas.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Change from last year	Minor change
Rationale	Reporting emissions is a pre-requisite to understanding and reducing negative environmental impacts. This question ensures organizations are measuring emissions from purchased or acquired electricity, steam, heat, and cooling.
Ambition	Organizations disclose that their Scope 2 emissions in the reporting year have reduced in line with a 1.5 °C-aligned pathway.

0	1	2	3	4
Year	Gross global Scope 2, location-based emissions (metric tons CO_2e)	Gross global Scope 2, market-based emissions (metric tons CO_2e)	End date	Methodological details
Reporting year	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	[This cell is not seen in ORS]	Text field [maximum 2,500 characters]

Past year 1 [Only appears if "1 year", "2 years", "3 years", "4 years" or "5 years" is selected in column 5 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	
Past year 2 [Only appears if "2 years", "3 years", "4 years" or "5 years" is selected in column 5 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	
Past year 3 [Only appears if "3 years", "4 years" or "5 years" is selected in column 5 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	
Past year 4 [Only appears if "4 years" or "5 years" is selected in column 5 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	
Past year 5 [Only appears if "5 years" is selected in column 5 of 1.4]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2015-19/11/2024]	

[Fixed row]

Requested content	General • Negative numbers are not allowed as reporting needs to be gross, not net figures. • If you answered in 7.3 that you are not reporting a Scope 2 location-based figure please leave the corresponding column blank. • The "Gross global Scope 2, market-based emissions (metric tons CO_2e)" column only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3. • Putting in zero would suggest that you have measured your emissions and that they are equal to zero. • Emissions estimates are acceptable, as long as there is transparency with regards to the estimation approach (what is estimated and how) and the data used for the analysis is adequate to support the objectives of the inventory. • For more information about CDP's current recommendations on what emission factor to use for electricity accounting, where you can find emission factors and the different types there are, please check the Technical Note "Accounting of Scope 2 emissions." Note that CH_4 and N2O emissions should be included in the emissions factor. • For further information, please also see GHG Protocol Scope 2 Guidance. • For more detailed information beyond what is provided in this guidance and technical annexes, consult your electricity suppliers, carbon advisor, or verifier/assurer.

	End date (column 3) • The start date of each past year will be automatically assumed to be exactly 365 days before the listed date. For example, if you enter an end date of 31/12/2023, your start date will be automatically assumed to be 01/01/2023. Methodological details (column 4) • Include at least the measurement approach, emissions factors, inputs, and assumptions used to measure your Scope 2 emissions, and a rationale for your choices. • Summarize the details of any contractual instruments. Note for first-time responders • If you are a first-time responder, provide gross global Scope 2 emissions data for the current reporting year and up to five years prior to the current reporting year. • The number of past year rows that will appear is dependent on your selection in column 5 "Number of past reporting years you will be providing Scope 2 emissions data for" of 1.4. • Input the gross global Scope 2 emissions data for the current reporting year in the first row and work backwards from the current reporting year. • Ensure that the reporting period represents only one full year that has already passed. Reporting periods should not be in the future. This information is important for others to understand the time dimension of your disclosure. • Use the methodological details column to report relevant information regarding your organization's past Scope 2 emissions data. Note for restatements • If you have chosen to restate your organization's gross global Scope 2 emissions data previously supplied to CDP (as indicated in column 5 "Number of past reporting years you will be providing Scope 2 emissions data for" of 1.4), you may do so here. • The number of past year rows that will appear is dependent on your selection in column 5 of 1.4. • Reporting recalculated figures for these years is optional. • All years Scope 2 emissions data needs to be entered in reverse order, with the current reporting year first, i.e. you should first input the current reporting year emissions data and work backwards from the most recent reporting year. • Ensure that the reporting period represents only one full year that has already passed. Reporting periods should not be in the future. This information is important for others to understand the time dimension of your disclosure. • Use the methodological details column to identify that this is restated data and the reason for the restatement. For more information on restatements, see CDP's technical note on restatements here.
Requested content – [sector] (if applicable)	Note for agricultural sector companies: Scope 2 emissions from the use of electricity for agricultural/forestry, processing/manufacturing and/or distribution activities should be reported as Scope 2 emissions here.

Explanation of terms	Electricity: In line with GHG Protocol, this term is used as shorthand for electricity, steam, and heating/cooling. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organizational boundary of the company. Scope 2 emissions physically occur at the facility where electricity is generated.
Additional information	Scope 2 emissions: In many industries, indirect GHG emissions mostly occur from the generation of purchased electricity (and purchased heat, steam and cooling) consumed by the company, as per the GHG Protocol Corporate Standard. Non-energy-intensive companies are likely to have significantly higher Scope 2 figures than Scope 1 figures. The GHG Protocol highlights that "accounting for Scope 2 emissions allows companies to assess the risks and opportunities associated with changing electricity and GHG emissions cost".

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Change from last year	No change
Rationale	For most organizations, the majority of emissions occur in stages of the value chain beyond their direct operations. This question allows data users to gauge the thoroughness of organizations' accounting processes and to understand how organizations are analyzing their emissions footprints.

0	1	2	3	4	5
Scope 3 category	Evaluation status	Emissions in reporting year (metric tons CO_2e)	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Please explain
Purchased goods and services	Select from: • Relevant, calculated • Relevant, not yet calculated • Not relevant, calculated • Not relevant, explanation provided	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Select all that apply: • Asset-specific method • Average data method • Average product method • Average spend-based method • Distance-based method	Numerical field [enter a number from 0-100 using a maximum of 2 decimal places and no commas]	Text field [maximum 2,400 characters]

	• Not evaluated		• Franchise-specific method • Fuel-based method • Hybrid method • Investment-specific method • Lessor-specific method • Site-specific method • Spend-based method • Supplier-specific method • Waste-type-specific method • Methodology for direct use phase emissions, please specify • Methodology for indirect use phase emissions, please specify • Other, please specify		
Capital goods					
Fuel-and-energy-related activities (not included in Scope 1 or 2)					
Upstream transportation and distribution					
Waste generated in operations					
Business travel					
Employee commuting					
Upstream leased assets					
Downstream transportation and distribution					
Processing of sold products					

Use of sold products					
End of life treatment of sold products					
Downstream leased assets					
Franchises					
Investments [row hidden for FS sector companies, data point requested in 12.1.1]					
Other (upstream)					
Other (downstream)					

[Fixed row]

Requested content	General • According to the GHG Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard (page 107): "Any estimates of avoided emissions must be reported separately from a company's Scope 1, Scope 2, and Scope 3 emissions, rather than included or deducted from the Scope 3 inventory". In the context of your CDP response, you can provide information on actions you take to reduce your Scope 3 emissions in question 7.55.2 on emissions reduction initiatives. • You should complete every row of the table (with the exception of the last two rows "Other (upstream)" and "Other (downstream)" which are optional). • The columns that appear will depend on the selection made in the "Evaluation status" column. • Note that the exclusion of specific sources of Scope 3 emissions should not be reported in this question, but instead in question 7.4.1. E.g. if you are excluding emissions from suppliers in a specific country/area, this should be reported in 7.4.1. Scope 3 category (column 0) • The categories of Scope 3 emissions have been taken from the Greenhouse Gas Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard, published in September 2011. Refer to the standard for information on the emissions sources that each category comprises and additional information on how to calculate these emissions. Evaluation status (column 1) • This column should be completed for all Scope 3 categories, with the exception of "Other (upstream)" and "Other (downstream)" – these two rows should only be used if organizations have a source of Scope 3 emissions that is not provided in the categories above. • The evaluation status includes two components: whether a Scope 3 category is relevant to your business and whether you have calculated the emissions in that category. Relevance should be determined with reference to the GHG Protocol Scope 3 standard and CDP's Technical Note on the relevance of Scope 3 categories by sector – see Additional Information for the Scope 3 relevance criteria. Select from:

	• Relevant, calculated - Select this option if the Scope 3 category is relevant to your business and you have calculated the emissions associated with at least part of it. • Relevant, not yet calculated - Select this option if you are aware that the Scope 3 category is relevant to your business but you have not yet calculated the emissions associated with it. • Not relevant, calculated - Select this option if you know that this Scope 3 category is not one of the most important for your business but as part of your Scope 3 work, you have been able to calculate the emissions associated with it. • Not relevant, explanation provided - Select this option if you have investigated this Scope 3 category and have been able to determine that it is not relevant. This could be based on quantitative or qualitative investigations. • Not evaluated - Select this option if you have not yet investigated this Scope 3 category and therefore do not know whether or not it is relevant for your business. Emissions in reporting year (metric tons CO2e) (column 2) • This column is only presented if "Relevant, calculated" or "Not relevant, calculated" is selected in column 1 "Evaluation status". • Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only. • Entering 0 implies that you have calculated the emissions associated with this category and they are equal to zero. Emissions calculation methodology (column 3) • This column is only presented if "Relevant, calculated" or "Not relevant, calculated" is selected in column 1 "Evaluation status". • Select the calculation methodologies used to calculate the emissions associated with this Scope 3 category. • Consult the GHG Protocol's Technical Guidance for Calculating Scope 3 Emissions for details of which emissions calculations methodologies are relevant to each Scope 3 category. Percentage of emissions calculated using data obtained from suppliers or value chain partners (column 4) • This column is only presented if "Relevant, calculated" or "Not relevant, calculated" is selected in column 1 "Evaluation status". • Organizations should apply the same reporting period to data obtained from suppliers or value chain partners. However, this can be challenging, therefore you may use information from different reporting periods provided the following conditions are met: • Your organization uses the most recent data available from suppliers or value chain partners without undue cost or effort to measure and disclose its greenhouse gas emissions; • The length of the reporting periods is the same; and • Your organization discloses the effects of significant events and changes in circumstances (relevant to your greenhouse gas emissions) that occur between the reporting dates of suppliers or value chain partners and your organization's reporting period. • Such data obtained from suppliers or value chain partners may take the form of primary activity data, or emissions data calculated by suppliers that are specific to suppliers' activities. More information on this can be found in Chapter 7, Collecting Data, of the GHG Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Please explain (column 5) • For all Scope 3 categories that you have identified as "Relevant, calculated" or "Not relevant, calculated" in the "Evaluation status" column, provide a short description of the

	types and sources of data used to calculate emissions (e.g. activity data, emission factors and GWP values), and any further details of the emissions calculation methodologies selected in column 3 "Emissions calculation methodology" such the assumptions and allocation methods used. Include information about the extent to which the data is verified. • Provide details regarding any other inputs or assumptions made in the measurement of Scope 3 emissions as well as the rationale for the chosen measurement approach, inputs and assumptions used. • If you have used data from suppliers or value chain partners with different reporting periods, specify the period this data covers and why more recent data was not available. Also specify any relevant changes which have occurred since the data was collected. • State the extent of the boundary of your calculation – see pages 34-38 of the GHG Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard for information on the minimum and, where applicable, optional boundary of each Scope 3 category. • For all transport-related emissions (i.e., those in Scope 3 category 4: "Upstream transportation and distribution", category 6: "Business travel", category 7 "Employee commuting" and category 9: "Downstream transportation and distribution"), indicate the life cycle stages covered in your calculation (e.g., Well-to-Wheel etc.). See the Explanation of Terms for more information. • For all Scope 3 categories that you have identified as "Not relevant, explanation provided" in the "Evaluation status" column, provide details of how you have reached the conclusion that the source is not relevant and include any qualitative or quantitative reasoning. • If you wish to provide additional context to any of the rows in the table, such as to explain why emissions have decreased or increased, you can also do that in this column. Note for all high-impact sector organizations: Organizations in one of CDP's high impact sectors (see here for more information) should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector, which identifies the relevant and most significant Scope 3 categories for each sector based on a review of literature and analysis of CDP 2021 data.
Requested content – [sector] (if applicable)	Note for oil & gas and coal sector organizations: • CDP has produced sector-specific guidance for estimating Scope 3 category 11 (use of sold products) emissions for the Oil & Gas and Coal sectors. Note for financial services sector companies: • For financial services sector companies responding to the full version of the questionnaire, Scope 3 Category 15 "Investments" emissions has been pulled out of question 7.8 and is requested to be disclosed in 12.1.1. As the majority of emissions occur in relation to financial products and services and/or investments, financed emissions, or Scope 3 Category 15 "Investments" emissions as defined by the GHG Protocol is the most relevant category to financial services organizations. • Thus, Row 15 "Investments" is hidden in this question, please disclose this in 12.1.1. Note for organizations responsible for the transportation (including maritime), storage, transmission and distribution of fossil fuels:

	• Scope 3 emissions from the handling of fossil fuels can be significant, as highlighted by the IEEFA. Therefore, organizations responsible for the transportation (including maritime), storage, transmission and distribution of fossil fuels should disclose emissions from the final use of these products as Scope 3 category 11 "Use of Sold Products". • Scope 3 category 11 emissions from fossil fuels should be calculated based on the throughput of fossil fuel products in your operations during the reporting year. • As per the ACT initiative's O&G Sector methodology, these emissions are a consequence of organizations' activities even though the fossil fuels may not be owned by the organization and thus are included in Scope 3. • Please refer to the CDP Technical Note "Guidance methodology for the estimation of Scope 3 category 11 emissions for oil and gas companies" for further guidance
Explanation of terms	Well-to-Wheel (WTW): A Well-to-Wheel analysis considers both the emissions from the vehicle itself, but also the emissions from the process of extracting the fuel used to power the vehicle's engine. It can be subdivided into the Well-to-Tank (WTT) (energy provision) analysis and the Tank-to-Wheel (TTW) (vehicle efficiency) analysis. Compared to a full emissions Life Cycle Assessment (LCA), the production, maintenance, and disposal of the vehicle are not assessed.
Additional information	Relevance criteria for Scope 3 emissions sources: Companies should not exclude any activity that would compromise the relevance of the reported inventory. The Corporate Value Chain (Scope 3) Accounting and Reporting Standard provides a list of criteria for determining relevance(Table 6.1, p61). Companies in one of CDP's high-impact sectors should also refer to CDP's Technical Note on the relevance of Scope 3 categories by sector, which identifies the relevant and most significant Scope 3 categories for each sector based on a review of literature and analysis of CDP 2021 data.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.8.1) Disclose or restate your Scope 3 emissions data for previous years.

Question details	
Question dependencies	This question only appears if you select "1 year" or "2 years" or "3 years" or "4 years" or "5 years" in response to "Number of past reporting years you will be providing Scope 3 emissions data for" in 1.4. .
Change from last year	No change
Rationale	A prerequisite for a meaningful emissions data comparison is a consistent data set over time. This question enables companies to restate Scope 3 emissions data previously supplied to CDP, for example to ensure that their historical data reflects their current organizational boundary. It also enables first-time responders to provide Scope 3 emissions data for the five years prior to the reporting year.
Ambition	Companies disclose Scope 3 emissions from previous years to enable tracking over time and to reflect changes that would otherwise compromise the consistency and relevance of the reported GHG emissions information.

Response options	Please complete the following table:

0	1	2	3	4	5
Year	End date	Scope 3: Purchased goods and services (metric tons CO2e)	Scope 3: Capital goods (metric tons CO2e)	Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)	Scope 3: Upstream transportation and distribution (metric tons CO2e)
Past year 1 [Only appears if "1 year", "2 years", "3 years", "4 years" or "5 years" is selected in column 6 of1.4]	Date field [enter a date between 19/11/2015-19/11/2024]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]
Past year 2 [Only appears if "2 years", "3 years", "4 years" or "5 years" is selected in column 6 of1.4]	Date field [enter a date between 19/11/2015-19/11/2024]				
Past year 3 [Only appears if "3 years", "4 years" or "5 years" is selected in column 6 of1.4]	Date field [enter a date between 19/11/2015-19/11/2024]				
Past year 4 [Only appears if "4 years" or "5 years" is selected in column 6 of 1.4]	Date field [enter a date between 19/11/2015-19/11/2024]				
Past year 5 [Only appears if "5 years" is selected in column 6 of1.4]	Date field [enter a date between 19/11/2015-19/11/2024]				

6	7	8	9	10	11	12
Scope 3: Waste generated in	Scope 3: Business travel	Scope 3: Employee	Scope 3: Upstream	Scope 3: Downstream	Scope 3: Processing of	Scope 3: Use of sold products

operations (metric tons CO2e)	(metric tons CO2e)	commuting (metric tons CO2e)	leased assets (metric tons CO2e)	transportation and distribution (metric tons CO2e)	sold products (metric tons CO2e)	(metric tons CO2e)
Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]

13	14	15	16	17	18	19
Scope 3: End of life treatment of sold products (metric tons CO2e)	Scope 3: Downstream leased assets (metric tons CO2e)	Scope 3: Franchises (metric tons CO2e)	Scope 3: Investments (metric tons CO2e) [column hidden for FS sector companies]	Scope 3: Other (upstream) (metric tons CO2e)	Scope 3: Other (downstream) (metric tons CO2e)	Comment
Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Text field [maximum 5,000 characters]

[Fixed row]

Requested content	General • Emissions must be reported in gross, not net figures. Therefore, negative numbers are not allowed. • Entering zero suggests that you have measured your emissions and that they are equal to zero. • You should enter data for all Scope 3 categories for which emissions have been calculated for the reporting period specified in column 1. If you have not calculated emissions for a Scope 3 category for that reporting period, leave the corresponding column blank. • Ensure that the reporting period represents only one full year that has already passed. Reporting periods should not be in the future. This information is important for others to understand the time dimension of your disclosure. • Emissions estimates are acceptable, as long as there is transparency with regard to the estimation approach (what is estimated and how) and the data used for the analysis is adequate to support the objectives of the inventory. If applicable to your organization's reporting of Scope 3 emissions, please outline this in the comment column.

	End date (column 1) • The start date of each past year will be automatically assumed to be exactly 365 days before the listed date. For example, if you enter an end date of 31/12/2023, your start date will be automatically assumed to be 01/01/2023. Note for first time responders • If you are a first-time responder, please provide gross global Scope 3 emissions data for up to five years prior to the current reporting year. • The number of past year rows that will appear is dependent on your selection in column 6 of 1.4. • Input Scope 3 emissions data for the year prior to the current reporting year in the first row and work backwards. • Use the comment column to report relevant information regarding your organization's past Scope 3 emissions data, such as the emissions calculation methodologies used, and an indication of the proportion of emissions calculated using data obtained from suppliers or value chain partners. Note for restatements • If you have chosen to restate your organization's gross global Scope 3 emissions data previously supplied to CDP (as indicated in column 6 of 1.4), you may do so here. The number of past year rows that will appear is dependent on your selection in column 6 of1.4. • Reporting recalculated figures for these years is optional. • Restated Scope 3 emissions data needs to be entered in reverse order i.e. you should work backwards from the most recent reporting year. • Use the comment column to identify that this is restated data and the reason for the restatement. • For more information on restatements see the CDP technical note on restatements here.
Requested content – [sector] (if applicable)	Note for financial services sector companies: • Column 18 "Scope 3 Category 15 "Investments" emissions" is not shown to financial services sector companies completing the full version of the questionnaire.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Change from last year	No change
Rationale	CDP supports verification and assurance as good practice in environmental reporting. This question gives data users further confidence in the accuracy of the data reported.

Response options	Please complete the following table:

1	2
Scope	Verification/assurance status
Scope 1	Select from: • No emissions data provided • No third-party verification or assurance • Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Select from: • No emissions data provided • No third-party verification or assurance • Third-party verification or assurance process in place
Scope 3	Select from: • No emissions data provided • No third-party verification or assurance • Third-party verification or assurance process in place

[Fixed row]

Requested content	General • Please provide the verification/assurance status that applies to your Scope 1, Scope 2, and Scope 3 emissions. If you have had a proportion of your Scope 1, 2, and/or 3 emissions verified, please select the option that applies to these emissions. If you are responding to the full version of the questionnaire, you will be given an opportunity to provide further details in the following questions. • If verification/assurance is underway, or part of a biennial or triennial process: It is recognized that for some companies, the verification/assurance schedule is out of synchronization with the CDP disclosure process and therefore it is difficult to complete the verification/assurance process before the CDP deadline. In addition, verification/assurance processes may occur every two years (biennial verification) or every three years (triennial verification). Where this is the case, you should select "Verification or assurance process in place". Full version respondents should then provide further information in the following questions. • Organizations responding to the full version of the questionnaire will be asked to provide evidence of any third-party verification that they have reported here in subsequent questions. Companies are advised to verify that their evidence can demonstrate all of the requirements set by CDP before answering this question (e.g. by consulting with their verifier/assurer). Full details are provided in the guidance for questions 7.9.1, 7.9.2 and 7.9.3. If certain information requirements set by CDP are not met in the standard assurance statement provided by your verifier, CDP has produced a template that can be used in conjunction with the original assurance statement. Scope 2 • If you operate in a region where you need to calculate both a location-based and a market-based figure to meet Scope 2 requirements, at this stage CDP only requires for you to verify

	one of these figures. However, in the interest of transparency, full version responders will be asked to disclose which of the two figures you have verified.
Additional information	Annual, biennial and triennial processes: If in the year the verification is completed (for example, Year 3), the data for all sources during the full cycle is verified (for example year 1, 2, and 3) the company can report 100% verification and should attach the verification statements that cover the emissions for all three years. This would be considered a triennial process. Annual processes: Not all processes taking place over three years will be considered a triennial process. Another example of a yearly process is when one third of the sources is verified every year Under this scenario, in Year 3 only 1/3 of the sources are verified, with the second third verified in Year 2, and the remaining third in Year 1. The company should report this as a yearly process where 33% of the sources are verified. Likewise, where a company has 1/3 of their emissions verified every year this is an annual process. CDP regards verification/assurance as a process undertaken by an independent third party accredited to perform verification/assurance of the GHG emissions data. Please only state that you have had or are having verification/assurance carried out if it is by an independent third party accredited to perform verification/assurance of GHG data. CDP does not prescribe companies' choice of specific verification/assurance providers. However, companies searching for a provider may want to consult our list of accredited verification partners: Learn more about CDP solution providers offering third party verification services here.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Question dependencies	This question only appears if you select "Third-party verification or assurance process in place" for Scope 1 emissions in response to 7.9.
Change from last year	No change
Rationale	CDP supports verification and assurance as good practice in environmental reporting. This question gives data users further confidence in the accuracy of the data reported.

1	2	3	4	5	6	7

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported emissions verified (%)
Select from: • Annual process • Biennial process • Triennial process	Select from: • No verification or assurance of current reporting year • Underway but not complete for current reporting year – first year it has taken place • Underway but not complete for reporting year – previous statement of process attached • Complete	Select from: • Not applicable • Limited assurance • Moderate assurance • Reasonable assurance • High assurance • Third party verification/assurance underway	Attach your document here.	Text field [maximum 500 characters]	Select from [Relevant standard standard drop down list]	Numerical field [enter a number from 0-100 using no decimals or commas]

[Add row]

Requested content	General • If you are reporting third party verification or assurance underway, your entries into the table should reflect the emissions that are being subject to verification/assurance for the current reporting year, with the exception of the attached statement, which will relate to a previous year. • CDP understands that you may seek verification for reasons other than reporting to CDP and that confidential information may be included within your detailed verification statement. In this case, it is sufficient for your verifier/assurer to attest to the Scope and level of assurance/verification through correspondence such as an abbreviated statement as long as this covers the data points outlined below (see guidance for column 4 'Attach your statement here'). • Note that this question refers to the proportion of your total reported gross global Scope 1 emissions over which you have sought verification, not the sampling regime that the verifier employed. For example, if you have only sought verification over your US operations then you should report the percentage of your total reported gross global Scope 1 emissions that these US facilities represent. Alternatively, if you have sought organization-wide verification, then you should enter 100%. If you have reported your full GHG inventory in your corporate communications material which has been verified, please enter 100%. If you are reporting third party verification or assurance underway, your answer should reflect the proportion of emissions that are being subject to verification/assurance for the current reporting year.

	• If you are reporting that all of your reported scope 1 emissions have been verified/assured, then the total of the figures entered into column "Proportion of reported emissions verified" (column 7) across all rows should equal 100%. The total of all rows entered into this table should not exceed 100%. Where a portion of your reported scope 1 emissions has been subject to multiple verification/assurance processes, you do not need to report the verification of these emissions more than once, and should only add one row for the highest level of assurance awarded for the emissions.
	
	Verification or assurance cycle in place (column 1)
	
	• A biennial verification/assurance process is where emissions are verified once every two years and a triennial verification/assurance process is where emissions are verified once every three years.
	• You may refer to the additional information provided on annual, biennial and triennial processes in 7.9 for further information.
	
	Status in the current reporting year (column 2)
	
	• Please select the option that is most appropriate to your company.
	
	Type of verification or assurance (column 3)
	
	• This column relates to the type of verification or assurance that has been awarded.
	• The option that is relevant will depend on the verification standard to which the verification process has been completed and the level of assurance agreed between the verifier and the company.
	• Companies can select from the following options:
	  ○ Not applicable - In very few cases, usually in program based compliance, the verification standard does not include a level of assurance; in this case select this option.
	  ○ Limited assurance - This is one of the most common levels of assurance and, for e.g., is appropriate to verification undertaken in accordance with ISO14064-3, ISAE3000, ASAE3000 and The Climate Registry.
	  ○ Moderate assurance - For example, this level of assurance is appropriate to verification undertaken in accordance with AA1000 and AT105.
	  ○ Reasonable assurance - For example, this is appropriate to verification undertaken under ISO14064-3, ISAE3000, ASAE3000 and The Climate Registry; all verification undertaken for EU ETS compliance is to a level of "reasonable assurance" (according to the requirements of EA-6/03).
	  ○ High assurance - For example, this is appropriate to verification undertaken in accordance with AA1000 and AT105.
	  ○ Third party verification/assurance underway - Select this option if verification/assurance is underway and you do not yet know the level of assurance that you are intending to achieve.
	
	Attach the statement (column 4)
	
	• Note the requirements for the statement detailed below and the option to use the CDP template.

	• All companies should attach a verification statement here unless they have selected "No verification or assurance of current reporting year" or "Underway but not complete for current reporting year – first year it has taken place" in column 2 'Status in the current reporting year'. The statement should:
	  o Clearly state that GHG emissions have been verified or assured as part of the process. If the statement refers to other documents that have been verified (such as Sustainability Report, Financial Report, GRI etc.) where items verified are specified, please attach those to the question as well;
	  o Relate to the relevant Scope;
	  o Clearly state the opinion and type of verification/assurance that has been given and the verification standard used. Assurers/verifiers must define the finding in their opinion, simply stating "limited assurance" is not sufficient to fulfill this criterion. These should match the selections made in columns 1 and 3; and
	  o Covers the current reporting year, or covers the 12-months prior for annual processes, 12-24 months prior for biennial processes, or 12-36 months prior for triennial processes if "Underway but not complete for reporting year – previous statement of process attached" is selected in "Status in the current reporting year" column.
	
	Page/section reference (column 5)
	• Please identify the page and the section that contains details of your verification/assurance of Scope 1 emissions.
	
	Relevant standard (column 6)
	• This column captures the verification standard against which the verification process has been undertaken.
	• It does not refer to the reporting or calculation standard. CDP has produced criteria for what constitutes an acceptable verification standard. All accepted verification standards, and exceptions to their use, are listed here. If you are using a verification standard that is not listed in the "accepted standards" nor the "non-verification standards," please contact your regional CDP office in order to have your verification standard reviewed. If you do not have your standard reviewed by contacting us and your response is submitted before the official CDP deadline, CDP will then review the standard used and add it to the website under "accepted" or "not accepted" depending on the outcome of the standard review. If the response is submitted after the official deadline, CDP cannot commit to review the standard used in time for scoring.
	• Select from the accepted standards listed or use "Other, please specify" if the standard you are using is not included.
	• If you select "Other, please specify", provide a label for the Relevant standard.
	• The verification standard reported in this column should be consistent with the standard stated in the verification statement.
	
	Proportion of reported emissions verified (%) (column 7)
	  • It may be the case that only a sub-section of your emissions has been verified/assured due to, for e.g., regulatory requirements.

	• Please identify what proportion of your total reported emissions for Scope 1 has been subject to the verification/assurance process described. • If you are reporting that all of your reported scope 1 emissions have been verified/assured, then the total of the figures entered into this column across all rows should equal 100%. The total of all rows entered into this table should not exceed 100%.
Additional information	Verification processes: If you have attained verification covering all your reported Scope 1 emissions (for example GHG emissions reported in your sustainability report) and also other verification covering smaller proportion of your business (for example only Californian operations or facilities under EU ETS regulation), you only should report the verification in place covering all reported Scope 1 emissions. If you have multiple verification practices covering different business divisions (for example Californian operations and facilities under EU ETS), you should report all of them by adding rows to the table, completing all columns, and attaching the appropriate documents for each verification practice.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Question dependencies	This question only appears if you select "Third-party verification or assurance process in place" for Scope 2 emissions in response to 7.9.
Change from last year	Minor change
Rationale	CDP supports verification and assurance as good practice in environmental reporting. This question gives data users further confidence in the accuracy of the data reported.

1	2	3	4	5	6	7	8
Scope 2 approach	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/ section reference	Relevant standard	Proportion of reported emissions verified (%)
Select from: • Scope 2 location-based	Select from: • Annual process • Biennial process	Select from: • No verification or assurance	Select from: • Not applicable • Limited assurance	Attach your document here	Text field [maximum 500 characters]	Select from [Relevant standard standard drop down list]	Numerical field [enter a number from 0-100 using no

• Scope 2 market-based	• Triennial process	of current reporting year • Underway but not complete for current reporting year – first year it has taken place • Underway but not complete for reporting year – previous statement of process attached • Complete	• Moderate assurance • Reasonable assurance • High assurance • Third party verification/ assurance underway				decimals or commas]

[Add row]

Requested content	General • If you are reporting third party verification or assurance underway, your entries into the table should reflect the emissions that are being subject to verification/assurance for the current reporting year, with the exception of the attached statement, which will relate to a previous year. • CDP understands that you may seek verification for reasons other than reporting to CDP and that confidential information may be included within your detailed verification statement. In this case, it is sufficient for your verifier/assurer to attest to the Scope and level of assurance/verification through correspondence such as an abbreviated statement as long as this covers the data points outlined below (see guidance for column 5 "Attach your statement here"). Scope 2 approach (column 1) • The "Scope 2 market based" dropdown only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3. • If you operate in a region where you need to calculate both a location-based and a market-based figure to meet Scope 2 requirements, at this stage CDP only requires for you to verify one of these figures. • However, in the interest of transparency, you are asked to disclose which of the two figures you have verified. Verification or assurance cycle in place (column 2)

- A biennial verification/assurance process is where emissions are verified once every two years and a triennial verification/assurance process is where emissions are verified once every three years.
- You may refer to the further information in 7.9 on annual, biennial and triennial processes for further information on annual, biennial and triennial processes.

Status in the current reporting year (column 3)

- Please select the option most appropriate to your company.

Type of verification or assurance (column 4)

- This column relates to the type of verification or assurance that has been awarded.
- The option that is relevant will depend on the verification standard to which the verification process has been completed and the level of assurance agreed between the verifier and the company.
- Companies can select from the following options:
    - Not applicable - In very few cases, usually in program based compliance, the verification standard does not include a level of assurance; in this case select this option.
    - Limited assurance - This is one of the most common levels of assurance and, for e.g., is appropriate to verification undertaken in accordance with ISO14064-3, ISAE3000, ASAE3000 and The Climate Registry.
    - Moderate assurance - For example, this level of assurance is appropriate to verification undertaken in accordance with AA1000 and AT105.
    - Reasonable assurance - For example, this is appropriate to verification undertaken under ISO14064-3, ISAE3000, ASAE3000 and The Climate Registry; all verification undertaken for EU ETS compliance is to a level of "reasonable assurance" (according to the requirements of EA-6/03).
    - High assurance – For example, this is appropriate to verification undertaken in accordance with AA1000 and AT105.
    - Third party verification/assurance underway – Select this option if verification/assurance is underway and you do not yet know the level of assurance that you are intending to achieve.

Attach the statement (column 5)

- Note the requirements for the statement detailed below and the option to use the CDP template.
- All companies should attach a verification statement here unless they have selected "No verification or assurance of current reporting year" or "Underway but not complete for current reporting year – first year it has taken place" in column 3 'Status in the current reporting year'. The statement should:
    - Clearly state that GHG emissions have been verified or assured as part of the process. If the statement refers to other documents that have been verified (such as Sustainability Report, Financial Report, GRI etc.) where items verified are specified, please attach those to the question as well;
    - Relate to the relevant Scope;

	○ Clearly state the opinion and type of verification/assurance that has been given and the verification standard used; and ○ Cover the current reporting year, or covers the 12-months prior if "Underway but not complete for reporting year – previous statement of process attached" is selected in "Status in the current reporting year" column. Page/section reference (column 6) • Please identify the page and the section that contains details of your verification/assurance of Scope 2 emissions. Relevant standard (column 7) • This column captures the verification standard against which the verification process has been undertaken. It does not refer to the reporting or calculation standard. • CDP has produced criteria for what constitutes an acceptable verification standard. All accepted verification standards, and exceptions to their use, are listed here. • The verification standard reported in this column should be consistent with the standard stated in the verification statement. If the response is submitted before the official CDP deadline, CDP will then review the standard used and add it to the website under "accepted" or "not accepted" depending on the outcome of the standard review. • If the response is submitted after the official deadline, CDP cannot commit to review the standard used in time for scoring. • Select from the accepted standards listed or use "Other, please specify" if the standard you are using is not included. • If you select "Other, please specify", provide a label for the Relevant standard. Proportion of reported emissions verified (%) (column 8) • It may be the case that only a sub-section of your emissions has been verified/assured due to, for e.g., regulatory requirements. • Please identify what proportion of your total reported emissions for Scope 2 has been subject to the verification/assurance process described.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details

Question dependencies	This question only appears if you select "Third-party verification or assurance process in place" for Scope 3 emissions in response to 7.9.
Change from last year	No change
Rationale	CDP supports verification and assurance as good practice in environmental reporting. This question gives data users further confidence in the accuracy of the data reported.

1	2	3	4	5	6	7	8
Scope 3 category	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/ section reference	Relevant standard	Proportion of reported emissions verified (%)
Select all that apply: • Scope 3: Purchased goods and services • Scope 3: Capital goods • Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) • Scope 3: Upstream transportation and distribution • Scope 3: Waste generated in operations • Scope 3: Business travel • Scope 3: Employee commuting • Scope 3: Upstream leased assets • Scope 3: Investments • Scope 3: Downstream transportation	Select from: • Annual process • Biennial process • Triennial process	Select from: • No verification or assurance of current reporting year • Underway but not complete for current reporting year – first year it has taken place • Underway but not complete for reporting year – previous statement of process attached • Complete	Select from: • Not applicable • Limited assurance • Moderate assurance • Reasonable assurance • High assurance • Third party verification/ assurance underway	Attach your document here	Text field [maximum 500 characters]	Select from [Relevant standard standard drop down list]	Numerical field [enter a number from 0-100 using no decimals or commas]

and distribution • Scope 3: Processing of sold products • Scope 3: Use of sold products • Scope 3: End-of-life treatment of sold products • Scope 3: Downstream leased assets • Scope 3: Franchises							

[Add row]

Relevant standard drop-down options:

- AA1000AS
- ABNT NBR ISO 14064-3:2007 (Associação Brasileira de Normas Técnicas)
- Advanced technologies promotion Subsidy Scheme with Emission reduction Target (ASSET)
- Airport Carbon Accreditation (ACA) des Airports Council International Europe
- Alberta Technology Innovation and Emissions Reduction (TIER)
- ASAE3000
- Attestation standards established by AICPA (AT105)
- Australian National GHG emission regulation (NGER)
- California Mandatory GHG Reporting Regulations (CARB)
- Canadian Institute of Chartered Accountants (CICA) Handbook: Assurance Section 5025
- Carbon Trust Standard
- Chicago Climate Exchange (CCX) verification standard
- The Climate Registry's General Verification Protocol (also known as California Climate Action Registry (CCAR))
- Compagnie Nationale des Commissaires aux Comptes (CNCC)
- Corporate GHG verification guidelines from ERT
- DNV VeriSustain Protocol/ Verification Protocol for Sustainability Reporting
- Dutch Standard 3000A
- Earthcheck Certification
- ERM GHG Performance Data Assurance Methodology
- European Union Emissions Trading System (EU ETS)
- IDW PS 821: IDW Prüfungsstandard: Grundsätze ordnungsmäßiger Prüfung oder prüferischer Durchsicht von Berichtenim Bereich der Nachhaltigkeit
- IDW AsS 821: IDW Assurance Standard: Generally Accepted Assurance Principles for the Audit or Review of Reports on Sustainability Issues
- ISAE3000
- ISAE 3410
- ISO14064-1
- ISO14064-3
- Japan voluntary emissions trading scheme (JVETS) guideline for verification
- Korean GHG and energy target management system
- NMX-SAA-14064-3-IMNC: Instituto Mexicano de Normalización y Certificación A.C
- RevR6 procedure for assurance of sustainability report
- Saitama Prefecture Target-Setting Emissions Trading Program
- SGS Sustainability Report Assurance
- Spanish Institute of Registered Auditors (ICJCE)

- SSAE 3000
- Standard 3810N Assurance engagements relating to sustainability reports of the Royal Netherlands Institute of Registered Accountants
- State of Israel Ministry of Environmental Protection, Verification of GHG and emissions reduction in Israel Guidance Document
- Swiss Climate CO2 Label for Businesses
- Thai Greenhouse Gas Management Organisation (TGO) Greenhouse Gas (GHG) Verification Protocol
- Toitū Envirocare's carbonreduce certification standard
- Tokyo Emissions Trading Scheme
- Other, please specify

Requested content	General • If you are reporting third party verification or assurance underway, your entries into the table should reflect the emissions that are being subject to verification/assurance for the current reporting year, with the exception of the attached statement, which will relate to a previous year. • CDP understands that you may seek verification for reasons other than reporting to CDP and that confidential information may be included within your detailed verification statement. In this case, it is sufficient for your verifier/assurer to attest to the Scope and level of assurance/verification through correspondence such as an abbreviated statement as long as this covers the data points outlined below (see guidance for column 5 Attach your statement here'). Scope 3 category (column 1) • Select the Scope 3 categories your verification/assurance statement covers. • For more information on Scope 3 categories, refer to the Greenhouse Gas Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Verification or assurance cycle in place (column 2) • A biennial verification/assurance process is where Scope 3 emissions are verified once every two years and triennial verification/assurance process where Scope 3 emissions are verified once every three years. • You may refer to the further information in 7.9on annual, biennial and triennial processes for further information on annual, biennial and triennial processes. Status in the current reporting year (column 3) • Please select the option most appropriate to your company Type of verification or assurance (column 4) • This column relates to the type of verification or assurance that has been awarded.

- The option that is relevant will depend on the verification standard to which the verification process has been completed and the level of assurance agreed between the verifier and the company.
- Companies can select from the following options:
    - Not applicable - In very few cases, usually in program based compliance, the verification standard does not include a level of assurance; in this case select this option.
    - Limited assurance - This is one of the most common levels of assurance and, for e.g., is appropriate to verification undertaken in accordance with ISO14064-3, ISAE3000, ASAE3000 and The Climate Registry.
    - Moderate assurance - For example, this level of assurance is appropriate to verification undertaken in accordance with AA1000 and AT105.
    - Reasonable assurance - For example, this is appropriate to verification undertaken under ISO14064-3, ISAE3000, ASAE3000 and The Climate Registry; all verification undertaken for EU ETS compliance is to a level of "reasonable assurance" (according to the requirements of EA-6/03).
    - High assurance - For example, this is appropriate to verification undertaken in accordance with AA1000 and AT105.
    - Third party verification/assurance underway - Select this option if verification/assurance is underway and you do not yet know the level of assurance that you are intending to achieve

Attach the statement (column 5)

- Note the requirements for the statement detailed below and the option to use the CDP template.
- All companies should attach a verification statement here unless they have selected "No verification or assurance of current reporting year" or "Underway but not complete for current reporting year – first year it has taken place" in column 3 'Status in the current reporting year'. The statement should:
    - Clearly state that GHG emissions have been verified or assured as part of the process. If the statement refers to other documents that have been verified (such as Sustainability Report, Financial Report, GRI etc.) where items verified are specified, please attach those to the question as well;
    - Relate to the relevant Scope 3 categories;
    - Clearly state the opinion and type of verification/assurance that has been given and the verification standard used.
    - Covers the current reporting year, or covers the 12-months prior if "Underway but not complete for reporting year – previous statement of process attached" is selected in "Status in the current reporting year" column.

Page/section reference (column 6)

- Please identify the page and the section that contains details of your verification/assurance of Scope 3 emissions.

Relevant standard (column 7)

	• This column captures the verification standard against which the verification process has been undertaken. It does not refer to the reporting or calculation standard. • CDP has produced criteria for what constitutes an acceptable verification standard. All accepted verification standards, and exceptions to their use, are listed here. • The verification standard reported in this column should be consistent with the standard stated in the verification statement. If the response is submitted before the official CDP deadline, CDP will then review the standard used and add it to the website under "accepted" or "not accepted" depending on the outcome of the standard review. • If the response is submitted after the official deadline, CDP cannot commit to review the standard used in time for scoring. • Select from the accepted standards listed or use "Other, please specify" if the standard you are using is not included. • If you select "Other, please specify", provide a label for the Relevant standard. Proportion of reported emissions verified (%) (column 8) • It may be the case that only a sub-section of your emissions has been verified/assured due to, for e.g., regulatory requirements. • Please identify what proportion of your total reported emissions for the selected Scope 3 categories has been subject to the verification/assurance process described. • The percentage of reported emissions verified can be calculated using the following equation: ○ (Total emissions verified in selected Scope 3 categories in metric tons CO2e) / (Total emissions reported in selected Scope 3 categories in metric tons CO2e) × 100%
Requested content – [sector] (if applicable)	Note for financial services companies: • Financial services companies are requested to verify figures reported in 12.1.1and/or 12.1.3 in row "Scope 3 Investments". • Financial services companies disclosing data for multiple portfolios in 12.1.1 and/or 12.1.3 are requested to clarify which portfolios the verification relates to in column 6 "Page/section reference". • If the verification process is different for different portfolios, use "add row" to disclose them separately. • The verification of data in module 12 – Environmental Performance (FS), other than data disclosed in 12.1.1 and/or 12.1.3, should be disclosed in 13.1.1.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details

Change from last year	No change
Rationale	Investors and data users are interested in understanding whether companies are successfully reducing their emissions year over year.
Response options	Select one of the following options: • Increased • Decreased • Remained the same overall • This is our first year of reporting, so we cannot compare to last year • We don't have any emissions data

Requested content	General • This question requires you to select the option from the drop-down menu that best describes how your combined Scope 1 and 2 emissions have changed compared with the previous year. • The change in emissions can be calculated using the following formula: Total gross Scope 1+2 emissions for the current reporting year – previous year's total gross Scope 1+2 emissions = total change in emissions • If the resulting figure is negative, then your company's overall emissions decreased compared to the previous year. If the resulting figure is positive, overall emissions have increased compared to the previous year. If the resulting figure is equal to zero, overall emissions have not changed compared to the previous year. • In this context your Scope 1 emissions are the figure supplied in response to question 7.6, and your Scope 2 emissions are the figure supplied in response to question 7.7. • If the previous year's figures have been restated, please refer to CDP's Technical Note on "Restatements" on whether to use the emissions figures originally reported to CDP or the restated figures for the calculation. The previous year compared should apply to the 12-month period directly prior to the reporting period, even if it does not completely overlap with the period previously reported to CDP.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.10.1) 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.

Question details	
Question dependencies	This question only appears if you select "Increased", "Decreased" or "Remained the same overall" in response to 7.10.

Change from last year	Modified guidance
Rationale	When investigating how year-on-year gross global emissions (Scope 1 + 2 combined) have changed, CDP and its investors are interested in changes at a granular level; thus allowing CDP's data users to gain an insight into factors than have contributed to these changes.
Response options	Please complete the following table:

1	2	3	4	5
Reason	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Select from: • Increased • Decreased • No change	Numerical field [enter a number from 0-999 using a maximum of 4 decimal places and no commas]	Text field [maximum 2,400 characters]
Other emissions reduction activities				
Divestment				
Acquisitions				
Mergers				
Change in output				
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

[Fixed row]

Requested content	General • Categorize the changes that have occurred in your gross global emissions. You are asked to break down all the different factors that have influenced any overall change in Scope 1+2 emissions; whether increasing or decreasing factors. • Break down each applicable factor, describe each in a separate row, and provide the value for the change in overall emissions that is attributed to each of the factors. • Even if companies have experienced no change overall or an increase in absolute emissions for Scopes 1 and 2, companies should still disclose reduction activities. • Emissions reduction activities could arise from a number of different sources, including reductions in energy consumption or lower emission equipment/processes. If your

emissions have changed compared to the previous reporting year due to several emissions reduction activities, you should aggregate the emissions change that occurred due to these activities and provide this information in row 2 "Other emissions reduction activities"..

- Any changes in emissions that are attributed to a decline or an increase in your business output (products or services) due to the COVID-19 pandemic should be reported using row "Change in output". Please state how your output was affected in "Please explain calculation".
- To report the change in emissions due to a switch from fossil fuels to biofuels, organizations should use row 2 "Other emissions reduction activities" to report the changes in emissions directly attributable to the switch.

Reason (column 1)

- This column is fixed; however, if a row does not apply to you, for e.g. your company did not experience any mergers or acquisitions during the reporting year, leave that row blank.
- Further details on each of the options are provided below:
- Change in renewable energy consumption (row 2)
    - Report the change in your organization's emissions because of the consumption of self-generated or purchased renewable energy.
    - In cases where you have purchased renewable energy, you may include this on the provision that you have accounted for those renewable energy purchases in your market-based Scope 2 figure reported in 7.7 and the purchases reported here were additional purchases in the reporting year.
- Due to the change in accounting practices around Scope 2 with the addition of Scope 2 market-based emissions and low-carbon energy, companies may see their Scope 2 emissions decrease. Any change in Scope 2 emissions due to the change in accounting method from Scope 2 location-based to Scope 2 market-based should not be reported here, but rather under "Change in methodology" (see below).
- CDP requires disclosure of gross emissions. Gross means total emissions before any deductions or other adjustments are made to take account of offset credits, avoided emissions from the use of goods and services, and/or reductions attributable to the sequestration or transfer of GHGs.
- Other emissions reduction activities (row 3)
    - This refers to changes in emissions that have occurred because of proactive emissions reduction initiatives or activities, for example those listed in question 7.55.2, <u>other than those caused by a change in renewable energy consumption</u> (which should be reported in the row "Change in renewable energy consumption").
- Divestment (row 4)
    - This refers to changes that occur as a result of selling off certain aspects of the businesses.
- Acquisitions (row 5)
    - This refers to changes that occur as a result of purchasing or obtaining another company/subsidiary/facility.
- Mergers (row 6)
    - This refers to changes that occur as a result of business mergers.
- Change in output (row 7)

	○ This refers to changes that occur as a result of changes (increases or decreases) in your business output (i.e. a product or service); this could be, for example, organic growth, purchases of additional facilities due to business expansion, declines in sales due to a global recession, or release of a new product. • Change in methodology (row 8) ○ This refers to changes that occur due to modifications in the way that the inventory is calculated, for e.g. changes in emissions factors used or changes in methodology protocol followed. ○ Companies that have amended their Scope 2 emissions figure as a result of the changes in Scope 2 accounting practices for low carbon energy should report this here. • Change in boundary (row 9) ○ This refers to changes in the boundary used for your inventory calculation, i.e. changing from financial control to operational control. This option could also apply if you have incorporated facilities into your inventory that were excluded in previous years. • Change in physical operating conditions (row 10) ○ This refers to changes in weather that have a significant influence on how the company operates, but that cannot be accounted for under the other options available, e.g. increase production of hydroelectricity because of increased rainfall. • Unidentified (row 11) ○ Complete this row if you are not able to identify the reason for the change in emissions from year to year. • Other (row 12) ○ Complete this row if there is an alternative reason(s) for the change. Where you have used this option, please provide details of the reason(s) for the change in the "Please explain" column. Direction of change in emissions (column 3) • Enter the direction of change of gross global (Scope 1 + Scope 2) emissions due to the reason specified, i.e. increased; decreased, or; No change. • You should only select "No change" if the percentage change is exactly zero, or zero to four decimal places (e.g. 0.00003). Emissions value (percentage) (column 4) • Enter the change in emissions attributed to the reason (factor) provided in column 1 as a percentage of the Scope 1 and 2 combined emissions. This value should not be greater than 999 and should not have more than four decimal places. If the value rounds to less than zero to four decimal places (e.g. 0.00003), you should enter 0.0000. There is no need to enter the % symbol, and direction of change will be indicated in column 3. This value should be calculated as follows: $$\left(\frac{\text{Change in Scope 1+2 emissions attributed to the reason described in column 1}}{\text{Previous year Scope 1+2 emissions}}\right) \times 100$$ Please explain calculation (column 5)

	• Report the figures used in the calculation for the figure in the "emissions value %" column. Refer to Example responses for further guidance. • Using no more than 2,400 characters you may also use this text box to provide any additional explanation that is relevant to capture the full complexity of the emissions changes.
Requested content – [sector] (if applicable)	Note for Electric utility sectors • Variations in emissions may be attributable to changes in capacity (that translated into changes in output), plant outages (which can also translate into changes in output) and weather events (changes in physical operating conditions). If so, this should be included in your answer to 7.10.1. • You can specify the specific drivers (e.g. changes in output due to the utilization of additional capacity coming in operation) in the comment box.

Worked example of reporting change in emissions

Example 1: The gross global emissions (Scope 1 + 2) of company X for this reporting year are 208 metric tons of CO_2e. Its gross global emissions for the previous reporting year were 200 metric tons of CO_2e. This means that the total change in emissions is 8 metric tons of CO_2e, equal to a 4% increase, according to the formula in the explanation of terms, above: (8/200) * 100 = 4%.

The change from 200 to 208 metric tons is attributed to two reasons: 1) an increase in 12 metric tons of CO_2e emissions due to increased production (i.e. a change in output); and 2) an estimated reduction of 4 metric tons of CO_2e achieved due to emissions reduction activities.

The emissions value (percentage) for each of these two individual factors can also be calculated using the same formula described in the guidance, above. In this example, the percentage change in emissions due to increased production is: (12/200) * 100 = 6%. This represents a 6% increase in emissions due to increased production.

The percentage change in emissions due to emissions reduction activities: (-4/200) * 100 = -2%. This represents a 2% decrease in emissions due to emissions reduction activities.

This company should respond in the following way to questions 7.10 and 7.10.1:

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

Increased

(7.10.1) 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.

Reason	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Other emissions reduction activities	4	Decreased	2	Due to "other emissions reduction activities" implemented during the year, despite an increase in production, emissions have not grown as high as could be expected. Last year 4 tons of CO_2e were reduced by our emissions reduction projects, and our total Scope 1 and Scope 2 emissions in the previous year was 200 tCO_2e, therefore we arrived at -2% through (-4/200) * 100= -2% (i.e. a 2% decrease in emissions).
Change in output	12	Increased	6	If no measures had been introduced, increased demand leading to increase output would have generated an extra 6% more of emissions.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questinnaire Sector	Question level	All

(7.10.2) Are your emissions performance calculations in 7.10 and 7.10.1 based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Question details	
Question dependencies	This question only appears if you select "Increased", "Decreased" or "Remained the same overall" in response to 7.10 and "We are reporting a Scope 2, market-based figure" selected in column "Scope 2, market-based" of 7.3.
Change from last year	Revised question dependency
Rationale	This question provides more transparency on how your organization's emissions performance figures are derived.
Response options	Select one of the following options: • Location-based • Market-based • Don't know

Requested content	General • In alignment with the GHG Protocol Scope 2 Guidance, companies are only required to compare their Scope 2 emissions for either their location-based or market-based figure, but are required to be transparent about which figure they use. • You should only select one option, as your market-based figure may inherently be a combination of location-based and market-based calculations if you have operations in regions where there are contractual instruments, and other operations in regions where there are not contractual instruments.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.11) How do your total Scope 3 emissions for the reporting year compare to those of the previous reporting year?

Question details	
Change from last year	No change
Rationale	Indirect emissions in the value chain are key for this sector. Data users are therefore interested in understanding whether companies are successfully reducing their Scope 3 emissions year on year.
Response options	Select one of the following options: • Increased • Decreased • Remained the same overall • This is our first year of reporting • We don't have any Scope 3 emissions data

Requested content	General • Select the option that best describes how your total Scope 3 emissions have changed compared with the previous year. • In this context, your total Scope 3 emissions are the sum of emissions reported in all Scope 3 categories in 7.8. • If your total Scope 3 emissions have increased because this year you have calculated additional Scope 3 categories, please select "Increased" and you will have the opportunity to provide further details in the following question.

Tags	
Authority type	All requesters

Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CG

(7.11.1) For each Scope 3 category calculated in 7.8, specify how your emissions compare to the previous year and identify the reason for any change.

Question details	
Question dependencies	This question only appears if you select "Increased", "Decreased", or "Remained the same overall" in response to 7.11.
Change from last year	No change
Rationale	This question asks how emissions from specific Scope 3 categories have changed. This level of granularity allows data users to gain insight into the factors that have contributed to these changes.
Response options	Please complete the following table. Only the Scope 3 categories selected in 7.8 as "Relevant, calculated" or "Not relevant, calculated" will appear in column 1.

0	1	2	3	4	5
Scope 3 category	Direction of change	Primary reason for change	Change in emissions in this category (metric tons CO_2e)	% change in emissions in this category	Please explain
Purchased goods and services	Select from: • Increased • Decreased • No change • First year of reporting this category	Select from: • Change in renewable energy consumption • Change in renewable energy generation • Change in product efficiency • Change in material efficiency • Change in supplier or distributor • Other emissions reduction activities	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-999 using a maximum of 2 decimal places and no commas]	Text field [maximum 2,400 characters]

		• Divestment • Acquisitions • Mergers • Change in output • Change in methodology • Change in boundary • Change in physical operating conditions • Unidentified • Other, please specify			
Capital goods					
Fuel and energy-related activities (not included in Scopes 1 or 2)					
Upstream transportation and distribution					
Waste generated in operations					
Business travel					
Employee commuting					
Upstream leased assets					
Downstream transportation and distribution					
Processing of sold products					
Use of sold products					
End-of-life treatment of sold products					
Downstream leased assets					
Franchises					
Investments					
Other (upstream)					
Other (downstream)					

[Fixed row]

Requested content	General • You are asked to break down changes in Scope 3 emissions by each category calculated in 7.8, even if you have experienced no change in your total Scope 3 emissions. • You should report the changes in emissions in the reporting year compared to the previous year. • In the event that your emissions have not changed for a particular category, select "No change" in column 2 and explain why not in the "Please explain" column. • Note that CDP requires disclosure of gross emissions. Gross means total emissions before any deductions or adjustments are made to account for offset credits, avoided emissions from the use of goods and services, and/or reductions attributable to the sequestration or transfer of GHGs. Scope 3 category (column 1) • This column is driven by your selections in 7.8 – only the categories for which you calculated your emissions will appear. Primary reason for change (column 3) • Select the primary reason for the change in emissions in each relevant Scope 3 category from the drop-down options provided (i.e. the factor which contributed to the largest change in emissions in that category). • Further details on each of the options are provided below: - Change in renewable energy consumption: Any change in your Scope 3 emissions because of renewable energy consumption in your value chain. - Change in renewable energy generation: Any change in your Scope 3 emissions because of renewable energy generation in your value chain. - Change in product efficiency: Any change in your Scope 3 emissions because of changes to the efficiency of your product or service when in use. - Change in material efficiency: Any change in your Scope 3 emissions because of changes to the raw materials used in your products or services. - Change in supplier or distributor: Any change in your Scope 3 emissions because of changes to your procurement and distribution policies. - Other emissions reduction activities: This refers to changes in Scope 3 emissions that have occurred because of proactive emissions reduction initiatives within your value chain, other than those stated above. - Divestment: This refers to changes in Scope 3 emissions that occur as a result of selling off certain aspects of the businesses. - Acquisitions: This refers to changes in Scope 3 emissions that occur as a result of purchasing or obtaining another company/subsidiary/facility. - Mergers: This refers to changes in Scope 3 that occur as a result of business mergers. - Change in output: This refers to changes in Scope 3 emissions that occur as a result of increases or decreases in your business output (i.e. products or services). E.g. organic growth, declines in sales due to a global recession, or release of a new product. - Change in methodology: This refers to changes in Scope 3 emissions that occur due to modifications in the way that the inventory is calculated. E.g. changes in emissions factors used or changes in the methodology protocol followed. - Change in boundary: This refers to changes in the reporting boundary used for your inventory calculation, i.e. changing from financial control to operational control. This

	option could also apply if you have incorporated facilities into your inventory that were excluded in previous years. - Change in physical operating conditions: This refers to changes in weather that have a significant influence on how your value chain operates, but that cannot be accounted for under the other options available. E.g. increased production of hydroelectricity because of increased rainfall. - Unidentified: Select this option if you are not able to identify the primary reason for the change in your Scope 3 emissions from the previous year. - Other, please specify: If there is an alternative reason for the change in Scope 3 emissions, select this option and state the reason. Change in emissions in this category (metric tons CO2e) (column 4) • Enter the change in emissions in this Scope 3 category when compared with the previous year. % change in emissions in this category (column 5) • Enter the change in emissions in this category (i.e. the figure reported in column 4) as a percentage of the total Scope 3 emissions in this category in the previous year. • This value should be calculated using the following formula: $\left(\frac{\text{Change in Scope 3 emissions in this category in the reporting year}}{\text{Scope 3 emissions in this category in the previous year}}\right) * 100$ Please explain (column 6) • Use this column to provide any additional context to your changes in Scope 3 emissions, such as any strategies or policies you have implemented which have resulted in the change in emissions. • If any reasons contributed to the change in emissions in addition to the primary reason selected in column 3, you may also specify this here.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CG

Biogenic Emissions

(7.12) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Question details

Change from last year	No change
Rationale	The GHG Protocol's Corporate Accounting and Reporting Standard outlines that carbon dioxide emissions from biogenic carbon shall be reported separately from the Scopes.
Response options	Select one of the following options: • Yes • No
Requested content	General • Carbon dioxide emissions from biogenic carbon occur during the combustion of biomass (e.g. in the form of biofuels such as biogas) or from certain land use management practices. If any of these are relevant to your organization, you should respond "Yes". In this context, "relevant" is as defined in the GHG Protocol's Corporate Accounting and Reporting Standard (page 8), meaning "that it contains the information that users—both internal and external to the company—need for their decision making".
Explanation of terms	Biogenic carbon: refers to carbon which is contained in biomass (both above-ground and below-ground), dead organic matter, soil organic matter, and harvested products.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS, AC, FB, PF

(7.12.1) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO_2.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.12.
Change from last year	No change
Rationale	This question provides data users insight into the CO_2 emissions from biogenic carbon. Reporting these emissions separately aligns with best practice environmental reporting and the GHG Protocol's Corporate Accounting and Reporting Standard.

CO_2 emissions from biogenic carbon (metric tons CO_2)	Comment
Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Text field [maximum 2,400 characters

[Fixed row]

Requested content	General • The GHG Protocol is developing new Land Sector and Removals Guidance. This new guidance is currently in the pilot testing and review phase, and will be finalized and published in 2024. .

	• Companies responding to the 2024 CDP corporate questionnaire should report in accordance with existing GHG Protocol corporate standards, and are not required to adhere to the draft Land Sector and Removals Guidance, as it is still under development. CO_2 emissions from biogenic carbon (metric tons CO_2) (column 1) • Please enter your total direct emissions of CO2 from biogenic carbon, for example, CO_2 emissions from combustion of biofuels. • This figure specifically requests information on direct CO2 emissions that occur from sources that are owned or controlled by the company. However, if you would like to report your indirect emissions from biogenic carbon, you can report this in the Comment column, outlining the quantity and source(s) of these emissions. • Do not include other GHGs emitted from the combustion of biomass or fermentation (e.g. nitrous oxide and methane are emitted from the combustion of biomass/biofuel). These should be reported within Scope 1, 2 or 3 (whichever is relevant to your company).
Additional information	Biogenic materials, including biomass, biofuels, and biogas, are increasingly used as a resource for energy generation. While biomass can produce fewer GHG emissions than fossil fuels and may be grown and used on a shorter time horizon, it still produces GHG emissions and should not be treated with a "zero" emission factor. Based on the GHG Protocol Corporate Accounting and Reporting Standard, any emissions of CH_4 or N_2O from biologically sequestered carbon shall be reported in scope 1, 2 or 3, while the emissions of CO_2 shall be reported outside the scopes. In practice, for Scope 2 emissions this means that any market-based method data that includes biofuels should report the CO_2 portion of the biofuel combustion separately from the scope. Please refer to GHG Protocol Scope 2 Guidance for more details.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS, AC, FB, PF

(7.13) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?

Question details	
Question dependencies	This question only appears if you select "Own land only" or "Value chain (including own land)" in response to column "Relevance of emissions and/or water-related impacts" for the "Production" row of 1.11, or you select "Direct operations" or "Both direct operations and upstream/downstream value chain" in response to column " Relevance of emissions and/or water-related impacts" for the "Processing/Manufacturing" or "Distribution" rows of 1.11.

Change from last year	No change
Rationale	According to the GHG Protocol Agricultural Guidance, except for land use change (LUC) that results in a reduction of carbon stock, all other CO_2 fluxes to/from biologically based carbon pools that are owned or controlled by you should be reported separately from the Scopes in a special "Biogenic Carbon" category. Thus, this question gathers information on biogenic carbon that is not included in your Scope 1 and Scope 2 figures. This information provides context to data users on the extent of your biogenic carbon fluxes and on the neutrality of your CO_2 emissions. Note that this question asks about any CO_2 fluxes that have not resulted in a reduction of carbon stock, as well as any CO_2 emissions from biofuel/biomass combustion in, but not limited to, machinery and vehicles (e.g. land/processing/manufacturing machinery, transportation vehicles).
Response options	Select one of the following options: • Yes • No • Don't know

Requested content	General • There are three components of Biogenic Carbon: • CO_2 fluxes (emissions or removals) during land use management; • Sequestration during LUC; and • CO_2 emissions from biofuel combustion (from land/processing/manufacturing machinery as well as biofuels used in vehicles) • Select "Yes", if any of the above applies to your organization • Note that CO_2 emissions from soils and woody biomass that result from land use change should be reported within the Scopes (not in the Biogenic Carbon category) because they effectively constitute permanent losses of carbon to the atmosphere. • The GHG Protocol is developing new Land Sector and Removals Guidance. This new guidance is currently in the pilot testing and review phase, and will be finalized and published in 2024. • Companies responding to the 2024 CDP corporate questionnaire should report in accordance with existing GHG Protocol corporate standards, and are not required to adhere to the draft Land Sector and Removals Guidance, as it is still under development.
Explanation of terms	Biogenic carbon: refers to carbon which is contained in biomass (both above-ground and below-ground), dead organic matter, soil organic matter, and harvested products. Land use management: Movement of CO_2 from carbon stocks in soils, above and below-ground woody biomass, and dead organic matter (DOM) stocks, and the combustion of crop residues for non-energy purposes. Sequestration during land use change: CO_2 removals by soils and biomass following afforestation or reforestation.
Additional information	Refer to the GHG Protocol Agricultural Guidance for more information on how to report biogenic carbon.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.13.1) Account for biogenic carbon data pertaining to your direct operations and identify any exclusions.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.13.
Change from last year	Modified question
Rationale	This question gathers data on biogenic carbon that is not included in your Scope 1 and Scope 2 figures. This information provides context to data users on the extent of your biogenic carbon fluxes and on the neutrality of your CO_2 emissions.
Response options	Please complete the following table:

1	2	3	4
Type of change	Emissions (metric tons CO2)	Methodology	Please explain
CO_2 emissions from land use management	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places]	Select all that apply: • Default emissions factors • Region-specific emissions factors • Empirical models • Process-based models • Field measurements • Other, please specify	Text field [maximum 2,400 characters]
CO_2 removals from land use management			
Sequestration during land use change			
CO_2 emissions from biofuel combustion (land machinery)			
CO_2 emissions from biofuel combustion (processing/manufacturing machinery)			
CO_2 emissions from biofuel combustion (other)			

[Fixed row]

Requested content	General
	
	• The biogenic carbon data requested here is linked to those business activities you indicated as relevant in 1.11, e.g. if you selected "Own land only" or "Value chain (including own land)" for row Production, you will be asked to report biogenic data on "CO_2 emissions from land use management". Note that if you selected"Value chain (including own land)" for an activity, you should only report biogenic data associated with your own operations.
	• The GHG Protocol is developing new Land Sector and Removals Guidance. This new guidance is currently in the pilot testing and review phase, and will be finalized and published in 2024.
	• Companies responding to the 2024 CDP corporate questionnaire should report in accordance with existing GHG Protocol corporate standards, and are not required to adhere to the draft Land Sector and Removals Guidance, as it is still under development.
	
	Type of change (column 1)
	
	• Note that:
	  ○ "CO_2 emissions/removals from land use management", "sequestration" and "CO_2 emissions from biofuel combustion (land machinery)" only appear in the case you indicated that production activities are relevant to your organization
	  ○ "CO_2 emissions from biofuel combustion (processing/manufacturing machinery)" only appears if you indicated that processing/manufacturing activities are relevant to your organization
	  ○ "CO_2 emissions from biofuel combustion (other)" only appears if you indicated that distribution activities are relevant to your organization
	
	Emissions (metric tons CO_2) (column 2)
	
	• Provide a figure in metric tons that is representative of the "type of change" indicated in column 1 within your direct operations
	
	Methodology (column 3)
	
	• Select the option(s) that best describe the methods used to calculate your emissions figure reported in column 3 (Emissions…)
	
	• You should consider the following:
	  ○ Default emissions factors: involve the multiplication of activity data by an international default emissions factor.
	  ○ Region-specific emissions factors: involve the multiplication of activity data by an emissions factor specific to the region.
	  ○ Empirical models: involve using field measurements to develop statistical relationships between GHG data and activity-specific factors.
	  ○ Process-based models: involve mathematically linking biogeochemical processes that control the production, consumption, and emission of GHGs
	• If none of the options are applicable to your organization, select "Other, please specify" and indicate the methodology you used to calculate the emissions figure in column 2
	
	Please explain (column 4)
	
	• Specify and describe the methodology and tools used to calculate your biogenic carbon figure reported in column 2 (Emissions…), including your assumptions
	• If applicable, specify the sources of the biofuel used

	• Specify and explain any exclusions
Additional information	Please consult the GHG Protocol Agricultural Guidance (Chapters 8 & 9) for more information on how to report biogenic carbon and the GHG Protocol Corporate Accounting and Reporting Standards for information on standards and calculations.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

Emissions Data – Agricultural Commodities

(7.14) Do you calculate greenhouse gas emissions for each agricultural commodity reported as significant to your business?

Question details	
Question dependencies	This question only appears if you select "Yes" in response to the column "Is this commodity considered significant to your business in terms of revenue?" for any row of 1.22 or 1.23.
Change from last year	Modified question
Rationale	Agricultural commodities that are significant to your business in terms of revenue could be closely associated with large CO_2 emissions and signal dependency on natural capital and its associated ecosystem services under threat by climate change.This question enables data users to gauge how prepared your organization is to respond to risks related to your reliance on agricultural commodities by assessing whether you collect and/or calculate greenhouse gas (GHG) emissions data on these commodities. This information also provides further context to data users about the magnitude of the climate-related risks associated with your business where these commodities are not produced/sourced sustainably or managed carefully.
Response options	Please complete the following table.

0	1	2	3	4	5	6	7
Agricultural commodities	GHG emissions calculated for this commodity	Reporting emissions by	Emissions (metric tons CO2e)	Denominator: unit of production	Change from last reporting year	Please explain	Explain why you do not calculate GHG emissions for this commodity

Fixed rows based on selection of commodities in 1.23	Select from: • Yes • No, but we intend to calculate this data within the next two years • No, and we do not intend to calculate this data within the next two years	Select from: • Total • Unit of production	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Select from: • Kilograms • Liters • Metric tons • Unit of product • Unit of revenue • Other, please specify	Select from: • This is our first year of measurement • Much lower • Lower • About the same • Higher • Much higher	Text field [maximum 2,000 characters]	Text field [maximum 2,000 characters]

[Fixed row]

Requested content	General • Organizations are encouraged to calculate GHG emissions data for all agricultural commodities specified as significant to their business in terms of revenue. Agricultural commodities (column 0) • Note that only those agricultural commodities that you indicated are significant in terms of revenue in 1.22 or 1.23 will appear in the list. Reporting emissions by (column 2) • This column is only presented if you select "Yes" in column 1 "GHG emissions calculated for this commodity". • Organizations are encouraged to report the agricultural commodity associated emissions per unit of production, e.g. CO2e/kg of product. However, if you are unable to provide this, you may report your emissions as an absolute figure by selecting "Total". Emissions (metric tons CO2e) (column 3) • This column is only presented if you select "Yes" in column 1 "GHG emissions calculated for this commodity". • This figure should be representative of your reporting year, boundaries for data collection/calculation as indicated in column 3 "Reporting emissions by" and expressed in metric tons. Denominator: unit of production (column 4) • This column will appear only if you select "Unit of production" in column 2 "Reporting emissions by". Change from last reporting year (column 5) • This column is only presented if you select "Yes" in column 1 "GHG emissions calculated for this commodity". Please explain (column 6)

	• This column is only presented if you select "Yes" in column 1 "GHG emissions calculated for this commodity". • If you used the "Other commodity" row to report a different commodity in 1.23, specify the name of the commodity produced or sourced by your organization. • Specify the boundaries used for data calculation, e.g. organization-wide, direct operations, upstream value chain or only selected facilities. • Specify any exclusions in the case your reported figure does not cover your entire boundary for data collection/calculation. In this, provide an explanation as to why you have excluded certain parts of your organization. • Provide details on the methods/tools and assumptions used to calculate your figure reported in column 4 "Emissions (metric tons CO_2e)". Explain why you do not calculate GHG emission for this commodity (column 7) • This column is only presented if you select either "No" option in column 1 "GHG emissions calculated for this commodity". • If you used the "Other commodity" row to report a different commodity in 1.23, specify the name of the commodity produced or sourced by your organization. • If you selected "No, but we intend to calculate this data within the next two years", detail your plans, by including: - Coverage of data calculation, e.g. organization-wide, upstream/downstream value chain or only selected facilities; - Timeframe for starting to calculate this information; - Methods/tools you plan to use. • If you selected "No, and we do not intend to calculate this data within the next two years", specify your main reason for not collecting/calculating this data and provide an explanation.
Additional information	The following tools can be used for calculating commodity-specific agricultural emissions: • RSPO PalmGHG Calculator • GHG Protocol Pulp and Paper tool • Cool Farm tool • FAO EX-ACT tool For an overview of the available resources (i.e. standards, methodologies, tools, and calculators) for assessing emissions from agricultural production and agriculturally-driven land use change, please refer to: Measure the Chain: Tools for Assessing GHG Emissions in Agricultural Supply Chains

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

Emissions Breakdown

Section Overview	This section enables respondents to break down Scope 1 and Scope 2 emissions by country, business division, facility and sector.

	By breaking down emissions by country or region, this data can be made available to regions, states and sub-national bodies to help guide the development of emissions-related legislation. Breaking down emissions by business division, facility and activity grants data users and investors transparency into the sources of a company's Scope 1 and 2 emissions and allows tracking the performance of divisions and individual facilities over time. The section also requests data on emissions other than carbon dioxide. These gases are often only reported in CO_2-equivalents (CO_2e), and so their contribution to overall emissions is sometimes masked.

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

Question details	
Change from last year	No change
Rationale	For many sectors and business activities, greenhouse gases other than carbon dioxide are significant and relevant. Since these gases are often only reported in CO2-equivalents (CO2e), their contribution to overall emissions is sometimes masked. CDP therefore requests companies to break down their gross Scope 1 emissions by GHG type.
Response options	Select one of the following options: • Yes • No • Don't know

Requested content	General • Select "Yes" if your organization's gross Scope 1 emissions inventory contains greenhouse gases other than carbon dioxide; for e.g. any of the other five greenhouse gases covered by the Kyoto Protocol (methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).
Additional information	Preparing an emissions inventory: The GHG Protocol Corporate Accounting and Reporting Standard provides requirements and guidance for companies and other organizations preparing a corporate-level GHG emissions inventory.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS

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

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.15.
Change from last year	Modified question
Rationale	For many sectors and business activities, greenhouse gases other than carbon dioxide are significant and relevant. Since these gases are often only reported in CO_2-equivalents (CO_2e), their contribution to overall emissions is sometimes masked. CDP therefore requests companies to break down their gross Scope 1 emissions by GHG type.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3
Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
Select from: • CO_2 • CH_4 • N_2O • HFCs • PFCs • SF_6 • NF_3 • Other, please specify	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Select from: • IPCC Sixth Assessment Report (AR6 – 100 year) • IPCC Fifth Assessment Report (AR5 – 100 year) • IPCC Fourth Assessment Report (AR4 - 100 year) • IPCC Third Assessment Report (TAR - 100 year) • IPCC Second Assessment Report (SAR - 100 year) • IPCC Sixth Assessment Report (AR6 – 20 year) • IPCC Fifth Assessment Report (AR5 – 20 year) • IPCC Fourth Assessment Report (AR4 - 20 year) • IPCC Third Assessment Report (TAR - 20 year) • IPCC Second Assessment Report (SAR - 20 year) • Other, please specify

[Add row]

Requested content	General
	• Please report your organization's emissions of the Kyoto greenhouse gases, which are:
	  ○ Carbon dioxide (CO_2);
	  ○ Methane (CH_4);
	  ○ Nitrous oxide (N_2O);
	  ○ Hydrofluorocarbon family of gases (HFCs);
	  ○ Perfluorocarbon family of gases (PFCs);
	  ○ Sulfur hexafluoride (SF_6).
	• Nitrogen trifluoride (NF_3) has been included in the basket of mandated GHGs as it is now considered a potent contributor to climate change and is therefore mandated to be included in national inventories under the United Nations Framework Convention on Climate Change (UNFCCC). Similarly, following an amendment issued by the Greenhouse Gas Protocol on May 2013, NF_3 should also be included in GHG inventories under the Corporate Standard and the Corporate Value Chain (Scope 3) Standard.

	• The total value for emissions reported in column 2, Scope 1 emissions (metric tons of CO_2e), should equal the value for gross global Scope 1 emissions reported in 7.6. • If using global warming potentials from the IPCC Sixth Assessment Report (AR6 – 100 year or AR6 – 20 year) to calculate your Scope 1 emissions CO_2e from CH_4, you should first calculate the CO_2e emissions from fossil CH_4 and non-fossil CH_4 separately using the relevant GWP, then sum these figures to provide in column 2 the total Scope 1 CO_2e emissions from both fossil and non-fossil CH_4. Greenhouse gas (column 1) • You can add rows for multiple greenhouse gas types and we request that you also add a row to report CO_2. Scope 1 emissions (metric tons of CO_2e) (column 2) • Report your organization's emissions of the greenhouse gas selected in column 1, in CO_2-equivalents (CO_2e). GWP Reference (column 3) • Identify the global warming potential your organization has applied to the selected greenhouse gas in order to standardize it to a carbon dioxide equivalent (CO_2e). Your gross Scope 1 emissions are reported in carbon dioxide equivalents in 7.6. If you have used a calculation tool and do not know which GWPs have been applied to your data, consult the tool documentation or reference sources. • If you select "Other, please specify", provide a label for the GWP Reference.
Explanation of terms	Global warming potential (GWP): The Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report (AR6) defines the Global Warming Potential (GWP) as "an index measuring the radiative forcing following an emission of a unit mass of a given substance, accumulated over a chosen time horizon, relative to that of the reference substance, carbon dioxide (CO_2). The GWP thus represents the combined effect of the differing times these substances remain in the atmosphere and their effectiveness in causing radiative forcing." By using GWPs, GHG emissions from multiple gases can be standardized to a carbon dioxide equivalent (CO_2e).
Additional information	Changes in Global Warming Potentials (GWPs): Estimates of GWPs have changed over time as scientific understanding has developed. GWP factors are reassessed every few years in the IPCC Assessment Reports and accordingly, CDP recommends that companies use the latest GWPs given in the IPCC's Sixth Assessment Report (AR6). This approach is aligned with the GHG Protocol Corporate and Accounting Reporting Standard, which states that the company "shall use 100-year GWP values from the IPCC and should use GWP values from the most recent Assessment Report, but may choose to use other IPCC Assessment Reports."

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS

(7.15.2) Break down your total gross global Scope 1 emissions from coal mining activities in the reporting year by greenhouse gas type.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.15.
Change from last year	No change
Rationale	Coal sector organizations face significant exposure to transitions around global GHG emissions either directly through the companies' own energy use for production or indirectly through combustion of fossil fuels. Organizations with coal mining activities are therefore requested to provide gross emissions for their emission sources by greenhouse gas type so that users of the information can account for the GHG emissions from the various emission sources including fugitive, combustion, and other emission sources.
Response options	Please complete the following table

Emissions sources	Gross Scope 1 CO_2 emissions (metric tons CO_2)	Gross Scope 1 methane emissions (metric tons CH4)	Total gross Scope 1 GHG emissions (metric tons CO_2e)	Comment
Fugitives (Underground coal mining)	Numerical field up to 999,999,999,999 and up to 3 decimal places	Numerical field up to 999,999,999,999 and up to 3 decimal places	Numerical field up to 999,999,999,999 and up to 3 decimal places	Text field [maximum 2,400 characters]
Fugitives (Surface coal mining)				
Fugitives (Post-mining and abandoned coal mines)				
Flaring				
Utilized methane				
Combustion (Underground coal mining, excluding flaring and utilization)				
Combustion (Surface coal mining, excluding flaring and utilization)				
Combustion (Electricity generation)				
Combustion (Other)				
Emissions not elsewhere classified				

[Fixed row]

Requested content	General

	• This question requests emissions data only from emission sources that fall within the chosen reporting boundary (i.e. Scope 1 emissions) and that are within the coal sector boundary. • Some of the categories defined in this table are based on the source categories and sub-source categories defined by the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Information on fugitive emissions can be found in Volume 2, Chapter 4.1. • Country/area level data from these categories is submitted through national inventory reporting to the UNFCCC and can be access via the UNFCCC data portal, under "Detailed data by Party". Note that categories in this source are labelled slightly differently to that in 2006 IPCC documentation. You should refer to IPCC documentation for definitions. • The total of GHG emissions (the sum of all rows in column 4) from this question's table is equal to the figure reported for coal production activities 7.19. • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4). Emissions category (column 1) • An explanation of the emissions categories is provided in the explanation of terms. • Should you require further information refer to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Gross Scope 1 CO2 emissions (metric tons CO_2) (column 2) • Report your organization's Scope 1 CO_2 emissions in metric tons CO_2 for the emissions category in column 1. Gross Scope 1 methane emissions (metric tons CH4) (column 3) • Report your organization's Scope 1 methane emissions in metric tons CH_4 for the emissions category in column 1. Total Gross Scope 1 emissions (metric tons CO_2e) (column 4) • Total greenhouse gas emissions should be aggregated and reported in units of CO_2e. • Greenhouse gas emissions include all gasses identified in the Kyoto Protocol, therefore the figure provided in this column may be higher than the sum of CO_2 and CH_4 (provided in columns 2 and 3, respectively). • The Global Warming Potential (GWP) factors used here should be consistent with your disclosures throughout the questionnaire. CDP encourages the use of the most recent GWP factors published by IPCC, in alignment with the GHG Protocol. Fugitives (Underground coal mining) (row 1) • This is the total of all fugitive emissions from underground mining. You should adjust for (deduct) methane utilization or flaring if you have provided data for these sub-categories in rows 4 and 5. If you choose not to disclose data for methane utilization or flaring, then you should not adjust for methane utilization or flaring here, in which case Equation 4.1.1 of IPCC Guidelines is relevant. • This category is recognized by the IPCC as 1.B.1.a.i.1 (or 1.B.1.a.1.i in UNFCCC data terminology). The Tier 1 and Tier 2 generalized equation for calculating these

emissions is described by Equation 4.1.2 in Volume 2, Chapter 4.1.3 of the IPCC Guidelines.

Fugitives (Surface coal mining) (row 2)

- This is the total of all fugitive emissions from surface mining.
- This category is recognized by the IPCC as 1.B.1.a.ii.1 (or 1.B.1.a.2.i in UNFCCC data terminology). The Tier 1 and Tier 2 generalized equations for calculating these emissions is described, respectively, by Equations 4.1.7 and 4.1.8 in Volume 2, Chapter 4.1.4 of the IPCC Guidelines.

Fugitives (Post-mining and abandoned coal mines) (row 3)

- This category covers sub-source categories 1.B.1.a.i.2, 1.B.1.a.i.3, and 1.B.1.a.ii.2 as recognized by the IPCC.

Flaring (row 4)

- This category is recognized by the IPCC as 1.B.1.a.i.4.
- Methane drained and flared, or ventilation gas converted to CO_2 by an oxidation process should be included here. This is an emission of CO_2.
- This is a subcategory of "Fugitives (Underground coal mining)", if it is reported here then it should not be included in your figure for row "Fugitives (Underground coal mining)". If you choose not to report flaring separately, then you should report it as part "Fugitives (Underground coal mining)".

Utilized methane (row 5)

- This is methane utilized for energy production i.e. methane that is recovered and combusted for energy purposes. It is therefore an emission of CO_2.
- This is a subcategory of "Fugitives (Underground coal mining)", if it is reported here then it should not be included in your figure for row "Fugitives (Underground coal mining)". If you choose not to report utilized methane separately, then you should report it as part "Fugitives (Underground coal mining)".

Combustion (Underground coal mining, excluding flaring and utilization) (row 6)

- Emissions arising from the combustion of fuels for energy used for underground coal mining. This excludes energy used that is recovered from methane utilization.
- This is primarily an emission of CO_2, with traces of other greenhouse gasses expected.

Combustion (Surface coal mining, excluding flaring and utilization) (row 7)

- Emissions arising from the combustion of fuels for energy used for surface coal mining. This excludes energy used that is recovered from methane utilization.
- This is primarily an emission of CO_2, with traces of other greenhouse gasses expected.

Combustion (Electricity generation) (row 8)

- Emissions arising from electricity generation plant inside the organizational boundary and the coal mining sector boundary.
- This is primarily an emission of CO_2, with traces of other greenhouse gasses expected.

Combustion (other) (row 9)

	• Emissions arising from combustion from activities not reported in above rows.
	
	Emissions not elsewhere classified (row 10)
	• This includes any emissions occurring in the organizational/sector boundary that have not been reported in the above rows.
	• Fugitive emissions remaining after the above rows are accounted for can include low temperature oxidation of exposed coal and uncontrolled combustion.
	
	Note on fugitive emissions from coal mining
	• Fugitive emissions includes all intentional and unintentional emissions from the mining and handling of coal. This encompasses accidental leaks, venting, flaring, and other processes.
	• Fugitive emissions derive from carbon dioxide (CO_2) and methane (CH_4) trapped in coal seams from the geological formation of coal. These are released when the coal seam is exposed and broken during mining.
	• Fugitive emissions from the mine can continue during subsequent processing and handling or after the mine has been closed. These are known as post-mining or abandoned emissions and should be reported, provided the asset remains inside the organizational boundary.
	
	Note on sector boundary
	• Sector production activities relate to activities conducted by your organization relating to the high-intensity sector that this sector-specific questionnaire relates to. These activities may be directly or indirectly related to the production process itself. Given the potential complexity of production sectors, CDP encourages you to identify and remove specific activities from your organizational boundary (or business division's organizational boundary) that are not necessarily a part of the sector. Starting with your answer to question 7.6, emissions from the following sources should be deducted:
	  o External corporate entities, i.e. assets, business divisions, partnerships and subsidiaries operating outside of the high-intensity sector.
	  o Non-industrial buildings, e.g. offices, accommodation, other property.
	  o Non-production related activities, e.g. management, services, R&D, marketing, retail. o Transport, e.g. distribution, business travel, shipping, freight, logistics.
	  o Projects, e.g. construction, engineering and maintenance.
	• Alternatively, you may consider constructing your sector boundary around activities that should be included. At a minimum, you should include in your sector boundary:
	  o The production processes
	  o All activities, processes and equipment that are ancillary to the production processes.
	  o All other industrial installations, energy installations and other installations or activities contributing to or supplying the production processes and ancillary activities, e.g. boilers, power plant, raw material preparation and extraction, etc.
	  o All buildings that house the production processes and ancillary activities and said installations, as well as buildings used for inventory storage.
	  o Onsite mobile combustion, e.g. forklifts and excavators, and movement of materials between industrial sites within the sector.
	  o Any other industrial activities that typically occur on the production sites of the high-intensity sector.

Explanation of terms	Fugitives: Comprises all intentional or unintentional releases of carbon dioxide (CO_2) methane (CH_4) and other greenhouse gases. The primary sources of these emissions may

	include fugitive equipment leaks, evaporation losses, venting, flaring and accidental releases. Further examples of leak sources include valves, fittings, flanges, compressor seals, other compressor related leaks, heaters, dehydrators, and pipelines. Accidental fugitive emissions can be individually found and fixed in order to make the emissions near zero. Emissions from non-point sources, such as wastewater treatment and surface impoundments, should be accounted for under fugitive emissions. Combustion: Combustion refers to combustion within the company's boundary giving rise to emissions of CO_2, N_2O, and CH_4. Sources may include boilers, heaters, furnaces, incinerators, internal combustion engines, and turbines. Scope 1 GHG emissions exclude emissions of CO_2 arising from the combustion and fermentation of biomass and biofuels; these emissions are reported as a separate category.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CO

(7.15.3) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.15.
Change from last year	No change
Rationale	Electric utilities face significant exposure from the transition to a zero-carbon economy through their global greenhouse gas emissions, either directly through electric utility companies' own energy use for production, or indirectly through combustion of fossil fuels. Electricity production is responsible for approximately 25% of the world's GHG production. Electric utilities are therefore requested to provide gross emissions for their emission sources by greenhouse gas from sources including fugitive, combustion and other emission sources.
Response options	Please complete the following table

Emissions sources	Gross Scope 1 CO_2 emissions (metric tons CO_2)	Gross Scope 1 methane emissions (metric tons CH_4)	Gross Scope 1 SF6 emissions (metric tons SF_6)	Total gross Scope 1 emissions (metric tons CO_2e)	Comment

Fugitives	Numerical field [enter a number from 0-999,999,999 using a maximum of 3 decimal places]	Numerical field [enter a number from 0-999,999 using a maximum of 3 decimal places]	Numerical field [enter a number from 0-999,999 using a maximum of 3 decimal places]	Numerical field [enter a number from 0-999,999,999 using a maximum of 3 decimal places]	Text field [maximum 2,400 characters
Combustion (Electric utilities)					
Combustion (Gas utilities)					
Combustion (Other)					
Emissions not elsewhere classified					

[Fixed row]

Requested content	General • This question requests emissions data only from emission sources that fall within the chosen reporting boundary (i.e. Scope 1 emissions) and that are within the electric utilities sector boundary. • Utility companies that purchase wholesale electricity supplied by independent power producers for resale to their customers should consider reporting these emissions under Scope 3. • When providing emissions resulting from combustion activities please note for the purposes of this question combustion is divided into three categories comprising electric utilities, gas utilities, and other. • Emissions not elsewhere classified includes any emissions occurring in the organizational/sector boundary that have not been reported in the above rows. Therefore, the sum of GHG emissions in all rows should equal the figure reported in 7.19. • The Global Warming Potential (GWP) factors used here should be consistent with your disclosures throughout the questionnaire. CDP encourages the use of the most recent GWP factors published by IPCC, in alignment with the GHG Protocol. • Negative numbers are not allowed as you are requested to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4). Emissions sources (column 1) • An explanation of the emissions categories is provided in the explanation of terms. Gross Scope 1 CO_2 emissions (metric tons CO_2) (column 2) • Report your organization's Scope 1 CO_2 emissions for the emissions category in column 1. Gross Scope 1 methane emissions (metric tons CH_4) (column 3) • Report your organization's Scope 1 methane emissions in CH_4 for the emissions category in column 1.

	Gross Scope 1 SF_6 emissions (metric tons SF_6) (column 4)
	• Report your organization's Scope 1 sulphur hexafluoride emissions in SF_6 for the emissions category in column 1.
	
	Total gross Scope 1 emissions (metric tons CO_2e) (column 5)
	• Total greenhouse gas emissions – from CO_2, CH_4 SF_6 and any other greenhouse gases such as HFC's etc., if applicable, should be aggregated and reported in units of CO2e.
	
	Note on sector boundary
	• Sector production activities relate to activities conducted by your organization relating to the high-intensity sector that this sector-specific questionnaire relates to. These activities may be directly or indirectly related to the production process itself. Given the potential complexity of production sectors, CDP encourages you to identify and remove specific activities from your organizational boundary (or business division's organizational boundary) that are not necessarily a part of the sector. Starting with your answer to question 7.6, emissions from the following sources should be deducted:
	  o External corporate entities, i.e. assets, business divisions, partnerships and subsidiaries operating outside of the high-intensity sector.
	  o Non-industrial buildings, e.g. offices, accommodation, other property.
	  o Non-production related activities, e.g. management, services, R&D, marketing, retail. o Transport, e.g. distribution, business travel, shipping, freight, logistics.
	  o Projects, e.g. construction, engineering and maintenance.
	• Alternatively, you may consider constructing your sector boundary around activities that should be included. At a minimum, you should include in your sector boundary:
	  o The production processes
	  o All activities, processes and equipment that are ancillary to the production processes.
	  o All other industrial installations, energy installations and other installations or activities contributing to or supplying the production processes and ancillary activities, e.g. boilers, power plant, raw material preparation and extraction, etc.
	  o All buildings that house the production processes and ancillary activities and said installations, as well as buildings used for inventory storage.
	  o Onsite mobile combustion, e.g. forklifts and excavators, and movement of materials between industrial sites within the sector.
	  o Any other industrial activities that typically occur on the production sites of the high-intensity sector.

Explanation of terms	Fugitives: Comprises all intentional or unintentional releases of carbon dioxide (CO_2) methane (CH_4) and other greenhouse gases. The primary sources of these emissions may include fugitive equipment leaks, evaporation losses, venting, flaring and accidental releases. Further examples of leak sources include valves, fittings, flanges, compressor seals, other compressor related leaks, heaters, dehydrators, and pipelines. Accidental fugitive emissions can be individually found and fixed in order to make the emissions near zero. Emissions from

	non-point sources, such as wastewater treatment and surface impoundments, should be accounted for under fugitive emissions. Combustion: Combustion refers to combustion within the company's boundary giving rise to greenhouse gas emissions. Sources may include boilers, heaters, furnaces, incinerators, internal combustion engines, and turbines. Scope 1 GHG emissions exclude emissions of CO_2 arising from the combustion and fermentation of biomass and biofuels; these emissions are reported as a separate category.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	EU

(7.15.4) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.15.
Change from last year	No change
Rationale	Reporting gross global Scope 1 emissions by emission category allows for a more in-depth understanding of business risks, such as exposure to future regulation. The emissions categories are broken down to provide data users with a relevant and complete understanding of your organization's oil and gas production activities and how these contribute to your emissions profile.
Response options	Please complete the following table.

Emissions category	Value chain	Product	Gross Scope 1 CO_2 emissions (metric tons CO_2)	Gross Scope 1 methane emissions (metric tons CH_4)	Total gross Scope 1 emissions (metric tons CO_2e)	Comment
Select all that apply: - Combustion (excluding flaring) - Flaring - Venting - Fugitives	Select all that apply: - Upstream - Midstream - Downstream - Other (please specify)	Select from: - Oil - Gas - Unable to disaggregate	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]	Text field [maximum 2,400 characters]

- Process (feedstock) emissions - Other (please specify)						

[Add row]

Requested content	General • This question requests emissions data only from emission sources that fall within the chosen reporting boundary (i.e. Scope 1 emissions) and that are within the oil & gas sector boundary. • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4). Emissions category (column 1) • Select the emissions category or categories which apply to the emissions breakdown being reported. • If you are unable to disaggregate your emissions as requested then you have the option to provide other categories using the "Other, please specify" option. Equally, if you wish to disaggregate further (e.g. to include combustion emissions from captured streams) then you may do so here. Value chain (column 2) • Select the value chain or parts of the value chain which apply to the emissions breakdown being reported. • If the breakdown of emissions does not apply to the value chains listed then select the option "Other, please specify" and outline the part of the oil and gas value chain that the breakdown does apply to. Product (column 3) • Select the product that the emissions breakdown applies to, if you cannot disaggregate the figure by oil or gas then select the option "Unable to disaggregate". Gross Scope 1 CO_2 emissions (metric tons CO_2) (column 4) • Report your organization's Scope 1 CO_2 emissions in metric tons CO_2 for the emissions category in column 1. Gross Scope 1 methane emissions (metric tons CH_4) (column 5) • Report your organization's Scope 1 methane emissions in metric tons CH4 for the emissions category in column 1. Gross Scope 1 emissions (metric tons CO_2e) (column 6) • Total greenhouse gas emissions should be aggregated and reported in units of CO_2e.

- Greenhouse gas emissions include all gasses identified in the Kyoto Protocol, therefore the figure provided in this column may be higher than the sum of CO_2 and CH4 (provided in columns 4 and 5 respectively).
  - The total of GHG emissions (the sum of all rows in column 6) from this question's table should be equal to the figures reported in question 7.19 (oil and gas production activities upstream and oil and gas production activities downstream).
- The Global Warming Potential (GWP) factors used here should be consisted with your disclosures throughout the questionnaire. CDP encourages the use of the most recent GWP factors published by IPCC, in alignment with the GHG Protocol.

Note on oil and gas sector boundary

- As a production sector, CDP describes the activities of the oil and gas sector as "oil and gas production activities". These activities may be directly or indirectly related to the production process itself. Given the potential complexity of production sectors, CDP encourages you to identify and remove specific activities from your organizational boundary (or oil and gas business division's organizational boundary) that are not necessarily a part of the oil and gas sector. Starting with your answer to question 7.6, emissions from the following sources should be deducted:
  - External corporate entities, i.e. assets, business divisions, partnerships and subsidiaries operating outside of the oil and gas sector (or value chain).
  - Non-industrial buildings, e.g. offices, accommodation, other property.
  - Non-production related activities, e.g. management, services, R&D, marketing, retail.
  - Transport*, e.g. distribution, business travel, shipping, freight, logistics.
  - Projects**, e.g. construction, engineering and maintenance.

- Alternatively, you may consider constructing your sector boundary around activities that should be included. At a minimum, you should include in your sector boundary:
  - The production processes.
  - All activities, processes and equipment that are ancillary to said production processes.
  - All other industrial installations, energy installations and other installations or activities contributing to or supplying said production processes and ancillary activities, e.g. boilers, power plant, raw material preparation and extraction, etc.
  - All buildings that house said production processes and ancillary activities and said installations, as well as buildings used for inventory storage.
  - Onsite mobile combustion, e.g. forklifts and excavators, and movement of materials between industrial sites within the sector.
  - Any other industrial activities that typically occur on the production sites of the oil and gas sector.

* Transport, storage, and distribution activities considered a defining part of the oil and gas sector value chain, e.g. midstream activities, should be included for oil and gas production activities.

** Projects considered an essential part of the oil and gas sector, such as exploration and extraction projects, should be included for oil and gas production activities.

Explanation of terms	Flaring: Includes emissions from elevated flares, ground flares, emergency flares, well-testing and well work-over. Fugitives: This includes emissions from unintentional leaks (or system malfunctions) from sources such as valves, fittings, flanges, compressor seals, other compressor related leaks, heaters, dehydrators, and pipelines. Accidental fugitive emissions can be individually found and fixed in order to make the emissions near zero. Emissions from non-point sources, such as wastewater treatment and surface impoundments, should be accounted for under fugitive emissions. Venting: Emissions from venting of associated gas and waste gas/vapor streams at oil and gas facilities. Vented emissions or intentional processing venting, arise from process, maintenance, turnarounds, non-routine activities and other activities, and include emissions of CH_4 and CO_2 occurring from such sources as inoperative flares, flashing of gas in crude oil or condensate storage tanks, pneumatic devices driven by natural gas, starters, pressure relief valves, blowdowns (vessels, pipelines, and compressors), compressor seals, pumps, loading operations, shipping operations, venting and purging, exploration and well testing, venting of casinghead gas from oil wells, maintenance and turnaround, and non-routine releases. Combustion: Combustion refers to combustion within the company's boundary giving rise to emissions of CO_2, N_2O, and CH_4. Sources may include boilers, heaters, furnaces, incinerators, internal combustion engines, and turbines. Scope 1 GHG emissions exclude emissions of CO_2 arising from the combustion and fermentation of biomass and biofuels; these emissions are reported as a separate category. Process emissions: Process emissions include CH_4 and CO_2 emissions from processes involving chemical or physical transformations other than fuel combustion. Sources include, among others, glycol dehydrators, acid gas treatment, hydrogen plants, catalyst regeneration, fluid cokers and flexi-cokers.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	OG

(7.16) Break down your total gross global Scope 1 and 2 emissions by country/area.

Question details	
Change from last year	Modified guidance
Rationale	By breaking down emissions to country/area level, information and data can be made available to help guide the development of emissions-related legislation.

0	1	2	3
Country/area	Scope 1 emissions (metric tons CO_2e)	Scope 2, location-based (metric tons CO_2e)	Scope 2, market-based (metric tons CO_2e)
Fixed rows appear based on countries/areas selected in question 1.7.	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]

[Fixed row]

Requested content	General This question does not appear to Financial Services-only organizations. Breaking down emissions to the country/area level is useful to investors as this is often the level at which emissions-related legislation is introduced. Emissions should be attributed to individual countries/areas wherever possible. CDP considers reporting emissions broken down by country/area best practice. Negative numbers are not allowed as organizations are to report gross, not net figures. Emissions figures should be for the reporting year only (as defined by your answer to 1.4). The emissions breakdown should denote the actual emissions occurring in the given country/area and being counted in that country's emissions inventory, independent of, e.g. financial presence in the country/area. If 100% emissions from a country have been excluded from disclosure then 0 should be entered for that country. Emissions occurring in international waters should be consistently allocated to the countries/areas listed. The approach should be detailed in the "Methodological details" column of 7.6 and/or 7.7. Country/area (column 0) Organizations will be presented with a row for each country/area selected in 1.7. Scope 2, location-based (metric tons CO2e) (column 2) This column does not appear for the Electric Utilities sector. Scope 2, market-based (metric tons CO_2e) (column 3) This column does not appear for the Electric Utilities sector.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS

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

Question details	
Change from last year	No change
Rationale	By requesting companies to break down emissions by business division, facility, and activity, CDP grants data users and investors transparency into the sources of a company's Scope 1 emissions.
Response options	Select all that apply from the following options: • By business division • By facility • By activity

Requested content	General
	• You should identify breakdowns that are relevant to your business/sector, and as such those that investors would find interesting.
	• By business division
	  o This breakdown can give an indication of the relative GHG performance of your company's divisions. When reported over time, your company and information users will be able to review improvements or declines in division performance. This breakdown can be used alongside revenue segments found in company annual filings to understand companies' emissions profiles in greater detail. To facilitate this process, it is recommended that companies match the divisions reported here with those found in company filings and financial statements.
	• By facility
	  o The GHG Protocol stationary combustion tool document states that a "facility includes all buildings, equipment, structures and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person or entity (or by any person or entity which controls, is controlled by or is under common control, with such person or entity)".
	  o Facilities may also be referred to as installations. More than one business activity may take place at a facility and a facility may include more than one combustion unit, such as a boiler. It is preferable that the facility type is included. Some examples of facility type are: gas works, refinery, coal mine, integrated steelworks, cement plant, and office buildings.
	  o Reporting at this level can provide a useful indicator for making comparisons between facilities. In some cases, individual facilities may come within the scope of particular legislation, requiring baselining and subsequent reduction of GHG emissions through improvements in energy efficiency. This is particularly the case for industrial plants. Therefore, providing facility-level emission figures may give data users insight into your organization's current/potential exposure to regulation in this area.
	• By activity
	  o Relevant activities are defined by the reporting company and could include stationary combustion, mobile combustion (transport), fugitive emissions, process activities, office activities, etc. These activities can take place over multiple business divisions, countries, or facilities. Reporting by activity allows a more in-depth understanding of business risk related to future regulation. To facilitate comparability of data between companies, you are asked to report a breakdown of your activities using language that would be clear to someone

	outside of your organization and avoid using company-specific terminology. Furthermore, the level of aggregation of activities should be set so that it is meaningful to investors or customers viewing your response. Each activity should be broken down to a level granular enough to provide a data user with a relevant and complete understanding of your company's activities and how these contribute to your emissions profile. Each activity should be broken down to a level sufficient for understanding the complete activity emissions profile and where further disaggregation would not add value for data users to understand the associated GHG emissions. o Integrated companies should attempt, where possible, to provide a breakdown of emissions associated with each stage of their owned value chain. o Companies that generate their own electricity should include it here as a separate activity, preferably with separation by fuel type. o Companies involved in extracting and/or processing/refining natural resources should consider reporting these activities separately for each product type.
Requested content – [sector] (if applicable)	Note for organizations responding to high-impact sector requests o If you select "By activity", you will be presented with question 7.17.3. If your company's primary CDP sector is one of the following: AC, FB, PF, CE, CH, CO, EU, MM, OG, ST, TO, or TS the response to 7.17.3 is not required. Organizations responding to these sector requests are presented with additional questions on this topic (7.19; 7.18, 7.42, 7.42.1, 7.15.2, 7.15.3, 7.15.4) relating specifically to activities in the sector. Your primary CDP sector is displayed in your response dashboard.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS

(7.17.1) Break down your total gross global Scope 1 emissions by business division.

Question details	
Question dependencies	• This question only appears if you select "By business division" in response to 7.17.
Change from last year	No change
Rationale	This question can give an indication of the relative GHG performance of your company's divisions. When reported over time, your company and CDP's data users will be able to review improvements or declines in division performance.
Response options	Please complete the following table.

1	2
Business division	Scope 1 emissions (metric tons CO_2e)

Text field [maximum 500 characters]	Numerical field [enter a range of 0- 999,999,999,999 using a maximum of 3 decimal places and no commas]

[Add row]

Requested content	Business division (column 1) • Using no more than 500 characters, state the business division you are disclosing Scope 1 emissions for. • For more details on reporting your business divisions, see guidance to 7.17. Scope 1 emissions (metric tons CO_2e) (column 2) • Report your organization's greenhouse gas emissions in CO_2-equivalent for the business division stated in column 1. • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS

(7.17.2) Break down your total gross global Scope 1 emissions by business facility.

Question details	
Question dependencies	This question only appears if you select "By facility" in response to 7.17.
Change from last year	No change
Rationale	Providing facility-level emission figures may give data users insight into your organization's current/potential exposure to regulation in this area. Reporting at this level can provide a useful indicator for making comparisons between facilities.
Response options	Please complete the following table.

1	2	3	4
Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Text field [maximum 500 characters]	Numerical field [enter a range of 0- 999,999,999,999 using a maximum of 3 decimal places and no commas]	Enter the latitude of your facility here using numbers between 90.000000 and -90.000000, e.g. 51.524810	Enter the longitude of your facility using numbers between 180.000000 and -180.000000, e.g. -0.106958

[Add row]

Requested content	General • CDP provides a place for companies to provide basic data for the geo-location of their facilities. This information will be useful to link CDP data with other sources of information and can help investors assess physical risks of climate change and exposure of assets. It will also help CDP to link the information requested by investors to cities preparing their inventory for CDP. • If your organization has Scope 1 emissions from non-stationary sources (i.e. transportation vehicles) that cannot be attributed to a specific facility, then you can report the emissions from these sources collectively in one row. You can identify these emissions by inputting "Non-stationary sources" in column 1 "Facility", and entering 0 in both column 3 "Latitude" and column 4 "Longitude". • If using the Export/Import functionality, it is essential that you check that data has entered correctly into each field in a question. Facility (column 1) • Using no more than 500 characters, identify the facility you are disclosing Scope 1 emissions for. • For more details on reporting your facilities, see guidance to 7.17. Scope 1 emissions (metric tons CO_2e) (column 2) • Report your organization's greenhouse gas emissions in CO_2-equivalent for the facility identified in column 1. • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4). Latitude (column 3) • Using standard geographic coordinates specify the north-south position (+90° to -90°) of the facility that you are reporting Scope 1 emissions for in column 2. Longitude (column 4) • Using standard geographic coordinates specify the east-west position (+180° to -180°) of the facility that you are reporting Scope 1 emissions for in column 2.
Additional information	Latitude and longitude: Latitude and longitude are geographic coordinates that specify, respectively, the north-south and east-west position, of a point on the Earth's surface. They are expressed as angular measures and thus, latitude can vary from +90° to -90° and longitude from +180° to -180°. • The geodetic system that should be used is the WGS 84, which is the system used by GPS (Global Positioning System), Google Maps, Google Earth, and all major web applications providing coordinates to users. If you want to report information to CDP but have the coordinates in another geodetic system (or datum) we ask you to please attach the information to this question. • If you don't have this information and want to locate your facilities using the internet, there are various web tools available to assist companies getting latitude and longitude coordinates according to WGS84. For example, Google Maps allows you to find the latitude and longitude of any point. When you are in Google Maps, if you right-click anywhere, you will find an option "What's here?" which will display the latitude and longitude.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS

(7.17.3) Break down your total gross global Scope 1 emissions by business activity.

Question details	
Question dependencies	This question only appears if you select "By activity" in response to 7.17.
Change from last year	No change
Rationale	Reporting emissions by activity allows a more in-depth understanding of business risks related to future regulation and climate-related issues, and allows organizations to identify potential opportunities to reduce emissions associated with operational activities.
Response options	Please complete the following table.

1	2
Activity	Scope 1 emissions (metric tons CO2e)
Text field [maximum 500 characters]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 3 decimal places and no commas]

[Add row]

Requested content	Activity (column 1) • Using no more than 500 characters, state the activity you are disclosing Scope 1 emissions for. • For more details on which activities to report, see guidance to 7.17. Scope 1 emissions (metric tons CO_2e) (column 2) • Report your organization's greenhouse gas emissions in CO_2-equivalent for the activity stated in column 1. • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4).
Requested content – [sector] (if applicable)	Note for organizations responding to high-impact sector requests • If your company's primary CDP sector is one of the the following: AC, FB, PF, CE, CH, CO, EU, MM, OG, ST, TO, or TS the response to 7.17.3 is not required. Organizations responding to these sector requests are presented with additional questions on this topic (7.19; 7.18, 7.42 7.42.1, 7.15.2, 7.15.3, 7.15.4) relating specifically to activities in the sector. Your primary CDP sector is displayed in your response dashboard.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS

(7.18) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?

Question details	
Question dependencies	This question only appears if you select "Own land only" or "Value chain (including own land)" in response to column "Relevance of emissions and/or water-related impacts" for the "Production" row of 1.11, or you select "Direct operations" or "Both direct operations and upstream/downstream value chain" in response to column " Relevance of emissions and/or water-related impacts" for the "Processing/Manufacturing" or "Distribution" rows of 1.11.
Change from last year	No change
Rationale	This question gathers data on whether an emissions figure has been calculated for activities pertaining this sector, taking place within your organizational boundary, and is being reported as part of your gross Scope 1. This informs data users on whether your Scope 1 figure is representative of your business' activities and their associated climate-related impacts
Response options	Select one of the following options: • Yes • Partially • No

Requested content	General • If your organization has calculated emissions from your relevant business activities (i.e. agricultural/forestry, processing/manufacturing and/or distribution) and these emissions are included in the global gross Scope 1 emissions figure reported in 7.6, please select "Yes", if these emissions have been included in their entirety, or "Partially", if some of these emissions were included. Otherwise, select "No".

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.18.1) Select the form(s) in which you are reporting your agricultural/forestry emissions.

Question details	
Question dependencies	This question only appears if you select "Yes" or "Partially" in response to 7.18, and select "Own land only" or "Value chain (including own land)" in response to the "Production" row in 1.11 column "Relevance of emissions and/or water-related impacts".
Change from last year	No change
Rationale	This question provides you the option to breakdown CO2e emissions associated with agricultural/forestry activities in your land in further categories, as advised by the GHG Protocol.
Response options	Select one of the following options: • Total emissions • Emissions disaggregated by category (advised by the GHG Protocol)

Requested content	General
	• Note that the GHG Protocol Agricultural Guidance recommends that Scope 1 emissions should be disaggregated by the following categories:
	  ○ Non-mechanical: Emissions from biological processes shaped by climatic and soil conditions or the burning of crop/timber residues
	  ○ Land use change: Emissions from land use change that results in a reduction in the size of carbon stocks e.g. from the conversion of native habitats into farmlands/production units
	  ○ Mechanical: Emissions from equipment or machinery operated on farms
	• If you select "Emissions disaggregated by category", you will be able to report a breakdown of your agricultural/forestry emissions in the subsequent question
	• If you are unable to report your agricultural/forestry emissions disaggregated by the categories listed above, you should select "Total emissions"
	• The GHG Protocol is developing new Land Sector and Removals Guidance. This new guidance is currently in the pilot testing and review phase, and will be finalized and published in 2023. Companies responding to the CDP 2023 climate change questionnaire should report in accordance with existing GHG Protocol corporate standards, and not use the draft land sector and removals guidance for CDP reporting in 2023, as it is still under development.

Additional information	Refer to the GHG Protocol Agricultural Guidance for further details on calculating agricultural emissions.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.18.2) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.

Question details	
Question dependencies	This question only appears if you select "Yes" or "Partially" in your response to 7.18
Change from last year	No change
Rationale	This question gathers information on Scope 1 data pertaining your relevant business activities and gives organizations an opportunity to provide further emissions breakdowns, as advised by the GHG Protocol.
Response options	Please complete the following table.

1	2	3	4	5
Activity	Emissions Category	Emissions (metric tons CO_2e)	Methodology	Please explain
Select from: • [List created from your response to 1.11]	Select from: • Non-mechanical • Land use change • Mechanical • Total	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]	Select all that apply: • Default emissions factor • Region-specific emissions factors • Empirical models • Process-based models • Field measurements • Other, please specify	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • You should provide Scope 1 emissions data pertaining <u>every</u> business activity areas that are relevant to your organization, as indicated in 1.11. • The GHG Protocol is developing new Land Sector and Removals Guidance. This new guidance is currently in the pilot testing and review phase, and will be finalized and published in 2024. • Companies responding to the 2024 CDP corporate questionnaire should report in accordance with existing GHG Protocol corporate standards, and are not required to adhere to the draft Land Sector and Removals Guidance, as it is still under development. Activity (column 1) • The list presented in this column includes all activities that are relevant to your organization as you indicated in 1.11. Add one row for each activity, except if "Agriculture/Forestry" is

relevant to you and you indicated previously that you can provide a breakdown of Scope 1 data by categories. In this case, you should add four rows for "Agriculture/Forestry" and one row for the other relevant activities

Emissions category (column 2)

- This column appears if you select "Emissions disaggregated by category" in response to 7.18.1.
- When disclosing data for "Agriculture/Forestry", you should disclose to all of the options listed here, including "Total". For all other relevant business activities, you should only select "Total". For example, if you are disclosing data for "Agriculture/Forestry" and "Processing/Manufacturing" and have indicated that you can breakdown your agricultural/forestry emissions by categories in 7.18.1, your table should look like as follows (for columns 1 and 2):

Activity	Emissions category
Agriculture/Forestry	Non-mechanical
Agriculture/Forestry	Land use change
Agriculture/Forestry	Mechanical
Agriculture/Forestry	Total
Processing/Manufacturing	Total

Whereas, if have selected "Total emissions" in response to 7.18.1, your table should look like as follows (for columns 1 and 2):

Activity	Emissions metric tons (CO_2e)
Agriculture/Forestry	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]
Processing/Manufacturing	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]

Emissions (metric tons CO2e) (column 3)

- If you do not know your Scope 1 emissions figure, do not add a zero (0). A zero indicates you have measured your emissions and that they are equal to zero.

Methodology (column 4)

- Select the option(s) that best describe the methods used to calculate your Scope 1 emissions figure reported in column 3 (Emissions…)

	• You should consider the following: • Default emissions factors: involve the multiplication of activity data by an international default emissions factor. • Region-specific emissions factors: involve the multiplication of activity data by an emissions factor specific to the region. • Empirical models: involve using field measurements to develop statistical relationships between GHG data and activity-specific factors. • Process-based models: involve mathematically linking biogeochemical processes that control the production, consumption, and emission of GHGs • Field measurements: these can be direct (e.g. livestock chambers that measure methane emissions from enteric fermentation) or indirect (e.g. measurement of carbon stocks before and after a change in management practices). • If none of the options are applicable to your organization, select "Other, please specify" and indicate the methodology your organization applied Please explain (column 5) • Specify and describe the assumptions, methods and tools used to calculate your Scope 1 emissions figure reported in column 3 (Emissions…) • Specify and explain any exclusions
Example response	For a company disclosing total agricultural emissions:

Activity	Emissions (metric tons CO_2e)	Methodology	Please explain
Agriculture/Forestry	200	Region-specific emissions factors; Field measurements	Our main agricultural input is beef (95% of our total production), and we understand that cattle can be a significant source of methane emissions (a potent greenhouse gas - GHG) due to enteric fermentation. We consider cattle to be our most significant source of GHG emissions and have focused our attention and efforts toward quantifying these emissions to date. Our entire beef production, and all its farm components (animals, input materials, land activities, and machinery) are included in the emissions accounting. We used the GHGs Accounting tool to calculate GHG emissions, which uses default and region-specific emissions factors and farm specific data. At the moment, we measure GHG emissions directly in a percentage of our sites (20%) but intend to increase these field measurements in the near future. In the next year, we plan to start collecting emissions data from our agricultural crops, that encompass 5% of our total production. We will initially target crops that we grow in the largest quantities including sugarcane and barley.

For a company disclosing agricultural emissions disaggregated by category:

Activity	Emissions category	Emissions (metric tons CO_2e)	Methodology	Please explain

Agriculture/Forestry	Non-mechanical	150	Default emissions factors; Region-specific emissions factors; Field measurements	Our main agricultural input is beef, and we understand that cattle can be a significant source of methane emissions (a potent greenhouse gas - GHG) due to enteric fermentation. We consider cattle to be our most significant source of GHG emissions and have focused our attention and efforts toward quantifying these emissions to date. Our entire beef production is included in the emissions analysis. For the non-mechanical emissions, we included all GHG emissions from enteric fermentation, soil nitrous oxide emissions and emissions from manure management. We used the GHGs Accounting tool to calculate GHG emissions, which considered region-specific emissions factors and farm specific data. At the moment, we measure GHG emissions directly in a percentage of our sites (20%) but intend to increase these field measurements in the near future. In the next year, we plan to start collecting emissions data from our agricultural crops, that encompass 5% of our total production. We will initially target crops that we grow in the largest quantities including sugarcane and barley.
Agriculture/Forestry	Land use change	35	Field measurements	For the emissions from land use change, we included CO2e emissions from all croplands that have been converted into pastures in the reporting year. We used field measurements to calculate our total emissions figure and extrapolated to the total area converted. This accounted for 3% of our total farmland area. Note that we have not amortized our emissions because the quantification interval has not exceeded one year.
Agriculture/Forestry	Mechanical	15	Default emissions factors	For the mechanical emissions figure, we accounted for the emissions from all the machinery in our farms and slaughterhouses. We used default emissions factors as inputs in the GHGs Accounting tool to calculate our total CO_2e figure.
Agriculture/Forestry	Total	200	Default emissions factors; Region-specific emissions factors; Field measurements	This total emissions figure combines non-mechanical, mechanical emissions, and emissions from land use change. We used the GHGs Accounting tool to calculate GHG emissions, which considered default and region-specific emissions factors and farm specific data. This accounts for the majority of our production units (95%). In the next year, we plan to start collecting emissions data from our agricultural crops, that encompass 5% of our total production. We will initially target crops that we grow in largest quantities including sugarcane and barley.

Additional information	Refer to: • the GHG Protocol Agricultural Guidance for further details on calculating agricultural emissions and;

	• the GHG Protocol Corporate Accounting and Reporting Standards for general guidance on standards and calculation tools.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.18.3) Why do you not include greenhouse gas emissions pertaining your business activity(ies) in your direct operations as part of your global gross Scope 1 figure? Describe any plans to do so in the future.

Question details	
Question dependencies	This question only appears if you select "No" in your response to 7.18
Change from last year	No change
Rationale	This question aims to identify the main reason for why you have not included emissions pertaining to relevant business activities taking place within your organizational boundary, as part of your gross Scope 1 figure. This informs data users on whether your Scope 1 figure is representative of your business' activities and their associated climate-related impacts and indicates if have any plans to do so in the next two years.
Response options	Please complete the following table:

1	2
Primary reason	Please explain
Select from: • Analysis in progress • We are planning to include in the next two years • Judged to be unimportant • Not an immediate business priority • No instruction from management • Lack of internal resources • Other, please specify	Text field [maximum 4,000 characters]

[Fixed row]

Requested content	General • You can provide either your primary reason for why you have not included emissions pertaining to your relevant business activities taking place within your organizational boundary as part of your gross Scope 1 figure, or describe any future plans to include these data in the next two years, if applicable

	Primary reason (column 1) • If none of the reasons are applicable to your organization, select "Other, please specify" and indicate your primary reason. If you need more than 40 characters, please use column 2 (Please explain) Please explain (column 2) • Provide an explanation in line with the primary reason selected in column 1 • If you selected the dropdown "Analysis in progress" in column 1, describe your evaluation methods, indicating the procedures and tools used for calculating your figures; specify whether this analysis will cover your entire reporting boundary; and provide a date for when the analysis will be finalized • If you selected "We are planning to include in the next two years", describe the methods and coverage (e.g., entire reporting boundary, relevant business activity) you plan to use in the analysis • If you selected "Lack of internal resources", specify the main challenges you experience

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.19) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

Question details	
Change from last year	Modified question
Rationale	Reporting emissions by activity allows a more in-depth understanding of business risks related to future regulation and climate-related issues, and allows organizations to identify potential opportunities to reduce emissions associated with operational activities.

0	1	2	3
Sector production activity	Gross Scope 1 emissions, metric tons CO_2e	Net Scope 1 emissions, metric tons CO_2e	Comment
Cement production activities	Numerical field [enter a number from 0-999,999,999 using a	Numerical field [enter a number from 0-999,999,999	Text field [maximum 2,400 characters]

	maximum of 3 decimal places]	using a maximum of 3 decimal places]	
Chemicals production activities			
Coal production activities			
Electric utility activities			
Metals and mining production activities			
Oil and gas production activities (upstream)			
Oil and gas production activities (midstream)			
Oil and gas production activities (downstream)			
Steel production activities			
Transport OEM activities			
Transport services activities			

[Fixed row]

Requested content	General
	• This question requests gross global Scope 1 emissions by sector production activity, i.e. aggregated across all business divisions and/or facilities for that sector.
	• It is based on question 7.6but is sector specific. Emissions occurring outside of the presented sector, should not be reported here. Therefore, the figure you report here should be lower than the figure you reported in 7.6.
	• Sector production activities are activities conducted by your organization within the high-intensity sector that this sector-specific questionnaire relates to. These activities may be directly or indirectly related to the production process itself.
	• Given the potential complexity of production sectors, CDP encourages you to identify and remove specific activities from your organizational boundary (or business division's organizational boundary) that are not necessarily a part of the sector. Starting with your answer to question 7.6, emissions from the following sources should be deducted:
	  o External corporate entities, i.e. assets, business divisions, partnerships and subsidiaries operating outside of the high-intensity sector.
	  o Non-industrial buildings, e.g. offices, accommodation, other property.
	  o Non-production related activities, e.g. management, services, R&D, marketing, retail.
	  o Transport, e.g. distribution, business travel, shipping, freight, logistics.
	  o Projects, e.g. construction, engineering and maintenance.
	• Alternatively, you may consider constructing your sector boundary around activities that should be included. At a minimum, you should include in your sector boundary:
	  o The production processes
	  o All activities, processes and equipment that are ancillary to the production processes.
	  o All other industrial installations, energy installations and other installations or activities contributing to or supplying the production processes and ancillary activities, e.g. boilers, power plant, raw material preparation and extraction, etc.
	  o All buildings that house the production processes and ancillary activities and said installations, as well as buildings used for inventory storage.
	  o Onsite mobile combustion, e.g. forklifts and excavators, and movement of materials between industrial sites within the sector.

	○ Any other industrial activities that typically occur on the production sites of the high-intensity sector. • You should report direct emissions occurring inside the organizational boundary and the sector boundary. • If your organization only operates within the presented high-intensity sector, then the emissions figure you report here is still likely to be lower than the figure you reported in 7.6. This is because for this question CDP encourages you to exclude activities that are not dependent on being in the presented sector. The purpose is to improve the consistency and accuracy of sector emissions reporting. • If your organization is active across multiple high-intensity sectors, complete this table as it is presented, providing gross global Scope 1 emissions for each sector production activity listed. Scope 1 emissions (metric tons CO2e) (column 2) • Emissions must be reported in gross, not net figures. Therefore, negative numbers are not allowed. Gross emissions are requested so that users of the information can account for the GHG emissions from sources owned or controlled by your organization, before any reductions for offsets are made, as per the GHG Protocol Corporate Standard. This transparency is meant to provide users with the most accurate portrayal of the emissions created within your company boundary. • Emission figures should be for the reporting year only (as defined by your answer to 1.4). • Putting in zero would suggest that you have measured your emissions and that they are equal to zero (0). • Scope 1 emissions should be reported in metric tons of CO_2e. Common conversion factors are included in the Technical Note on "Units of Measure Conversions". • Special requirements for carbon sequestration, captured & stored and transferred CO_2, transfer in – transfer out, and enhanced oil recovery are explained in the Technical Note on "Special conditions for reporting Scope 1 emissions". Comment (column 3/column 4 for cement) (optional) • You are encouraged to comment on the activity boundary applied to your disclosure. Comment on any activities that may be part of your organization or, if you also operate in other sectors, the relevant division of your organization, but have not been included here because they are not dependent on being part of the sector. If your methodology employs sector-based guidelines for accounting, then you should also mention them here. Any other comments you deem relevant to your response may also be provided here. Net Scope 1 emissions, metric tons CO2e (column 3 – for cement sector only) • This column only appears for the Cement sector • Net emissions are gross emissions minus credits for indirect GHG savings. Credits may be awarded for the use of "alternative fuels and raw" materials (AFR). AFR come in the form of recovered wastes which displace the use of fossil fuels. Subtracting credits is in-effect applying a zero-emission factor to the combustion of these wastes. • Emission figures should be for the reporting year only (as defined by your answer to 1.4). • Putting in zero would suggest that you have measured your emissions and that they are equal to zero (0). • Scope 1 emissions should be reported in metric tons of CO_2e. Common conversion factors are included in the Technical Note on "Units of Measure Conversions".

	• Special requirements for carbon sequestration, captured & stored and transferred CO_2, transfer in – transfer out, and enhanced oil recovery are explained in the Technical Note on "Special conditions for reporting Scope 1 emissions".
Requested content – [sector] only (if applicable)	Note for oil and gas sector This question splits oil and gas activities into upstream, midstream and downstream as follows: • Upstream includes exploration, development, and production of oil and gas. • Midstream includes the transportation, storage, and distribution of crude oil and natural gas. • Downstream includes refining, processing, distribution, and marketing of products derived. For the purpose of this question, Chemicals are also included in this Downstream category, which comprises the manufacture, distribution and marketing of chemical products derived from oil and gas (petrochemicals). Transport, storage, and distribution activities considered a defining part of the oil and gas sector value chain, e.g. midstream activities, should be included for oil and gas production activities. Projects considered an essential part of the oil and gas sector, such as exploration and extraction projects, should be included for oil and gas production activities.

Additional information	A note on biogas
	
	• Carbon dioxide emitted from the combustion of biomass/biofuel or fermentation should not be included in your response to question 7.6 but instead should be reported in 7.12. This applies to self-generated biogas, and biogas delivered by a direct, dedicated pipeline.
	• When gas is sourced from a shared pipeline network with multiple sources including both renewable and non-renewable sources, certificates are required to demonstrate the renewable origin of gas (i.e. "certified biogas" or "green gas certificates") and the following conditions need to be met:
	  ○ The company combusts gas sourced from a shared gas pipeline network;
	  ○ It also owns or purchases green gas certificates that originated from one of the gas producers on the pipeline network – these need not necessarily be purchased directly from the biogas producers;
	  ○ The company permanently retains the environmental attributes of the gas consumption, including any energy attribute certificates.
	• The appropriateness of using market-based instruments such as green gas certificates for the emissions inventories is a contested issue. The GHG Protocol is undertaking a process to determine the need and scope for additional guidance building on the existing set of corporate GHG accounting and reporting standards for Scope 1, Scope 2, and Scope 3 emissions. As part of this process, the GHG Protocol plans to holistically examine the appropriateness of market-based accounting methods across sectors, end-uses, and scopes. CDP intends to align with any revisions to the GHG Protocol standards and guidance resulting from this process, including on the use of green gas certificates for emissions accounting.
	• While the GHG Protocol process is ongoing, companies are encouraged to make their own judgement of the appropriateness of using green gas certificates in their emissions accounting. Companies should be transparent about any such

	use of green gas certificates by providing relevant details in the "Comment" column (column 5) in question 7.6, and in 7.12.1. • If the company uses biogas that is sourced from a dedicated pipeline and the source is renewable, then they do not need certificates to prove the renewable origin. • CDP does not have specific requirements or recommendations for biogas certification. Certified biogas is defined as a contractual instrument that meets the Scope 2 Quality Criteria in GHG Protocol Scope 2 Guidance. For more information on this refer to CDP Technical Note: Accounting of Scope 2 emissions.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CE, CH, CO, EU, MM, OG, ST, TO, TS

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

Question details	
Change from last year	Modified guidance
Rationale	By requesting companies to break down emissions by business division, facility, and activity, CDP grants data users and investors transparency into the sources of a company's Scope 2 emissions.
Response options	Select all that apply from the following options: • By business division • By facility • By activity

Requested content	General
	• This question does not appear to EU and FS only organizations.
	• You should identify breakdowns that are relevant to your business/sector and as such, those that investors would find interesting.
	• By business division
	  ○ This breakdown can give an indication of the relative GHG performance of your company's divisions. When reported over time, your company and the information users will be able to review improvements or declines in division performance. This breakdown can be used alongside revenue segments found in company annual filings to understand companies' emissions profiles in greater detail. It is recommended that companies match the divisions reported here with those found in company filings and financial statements to facilitate this process.
	• By facility
	  ○ The GHG Protocol stationary combustion tool document states that a "facility includes all buildings, equipment, structures and other stationary items which are located on a

	single site or on contiguous or adjacent sites and which are owned or operated by the same person or entity (or by any person or entity which controls, is controlled by or is under common control, with such person or entity)". o Facilities may also be referred to as installations. More than one business activity may take place at a facility and a facility may include more than one combustion unit, such as a boiler. o Reporting at this level can provide a useful indicator for making comparisons between facilities. In some cases, individual facilities may come within the scope of particular legislation, requiring baselining and subsequent reduction of GHG emissions through improvements in energy efficiency. This is particularly the case for industrial plants. Therefore, providing facility-level emission figures may give data-users insight into your organization's current/potential exposure to regulation in this area. • By activity o Relevant activities should be defined by the reporting company but could include process activities, office activities etc. These activities can take place over multiple business divisions, countries/areas or facilities. Reporting by activity allows a more in depth understanding of business risk to future regulation. To facilitate comparability of data between companies, you are asked to report a breakdown of your activities using language that would be clear to someone outside of your organization and avoid using company-specific terminology. Furthermore, the level of aggregation of activities should be set so it is meaningful to investors or customers viewing your response. Each activity should be broken down to a level granular enough to provide a data user with a relevant and complete understanding of your company's activities and how these contribute to your emissions profile. Each activity should be broken down to a level sufficient for understanding the complete activity emissions profile and where further disaggregation would not add value for data users to understand the associated GHG emissions.
Requested content – [sector] (if applicable)	Note for agricultural sectors • You should consider the business activity areas that are relevant to your organization, as indicated in 1.11 (i.e., if you selected "Own land only/Direct operations only" or "Both own land/direct operations and elsewhere in your value chain" for the following activities: agriculture/forestry, processing/manufacturing, and/or distribution). Note for organizations responding to high-impact sector requests • If you select "By activity", you will be presented with question 7.20.3. If your company's primary CDP sector is one of the following: OG, CO,TO, TS, MM, ST, CH or CE, the response to 7.20.3 is not required. Organizations responding to these requests are presented with additional questions on this topic (7.21, 7.42, 7.42.1) relating specifically to activities in the sector. Your primary CDP sector is displayed in your response dashboard.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS & EU

(7.20.1) Break down your total gross global Scope 2 emissions by business division.

Question details	
Question dependencies	• This question only appears if you select "Business division" in response to 7.20.
Change from last year	Minor change
Rationale	This question can give an indication of the relative GHG performance of your company's divisions. When reported over time, your company and CDP's data users will be able to review improvements or declines in division performance.
Response options	Please complete the following table.

1	2	3
Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Text field [500 maximum characters]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]

[Fixed row]

Requested content	
	Business division (column 1) • Using no more than 500 characters, state the business division you are disclosing Scope 2 emissions for. Scope 2, location-based (metric tons CO2e) (column 2) • Report your organization's Scope 2 emissions in CO_2e for the business division stated in column 1, on a location-based method, i.e. reflecting the average emissions intensity of grids on which energy consumption occurs. • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4). Scope 2, market-based (metric tons CO2e) (column 3) • This column only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3. • Report your organization's Scope 2 emissions in CO_2e for business division stated in column 1, on a market-based method, i.e. reflecting emissions from electricity that companies have purposefully chosen (or their lack of choice). • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4).

Tags	
Authority type	All requesters

Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS & EU

(7.20.2) Break down your total gross global Scope 2 emissions by business facility.

Question details	
Question dependencies	This question only appears if you select "By facility" in response to 7.20.
Change from last year	Minor change
Rationale	Providing facility-level emission figures may give data users insight into your organization's current/potential exposure to regulation in this area. Reporting at this level can provide a useful indicator for making comparisons between facilities.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3
Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Text field [maximum 500 characters]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]

[Add row]

Requested content	Facility (column 1) • Using no more than 500 characters, identify the facility you are disclosing Scope 1 emissions for. • If your organization has Scope 2 emissions from non-stationary sources that cannot be attributed to a specific facility then you can report the emissions from these sources collectively in one row. You can identify these emissions by inputting "Non-stationary sources" in this column. Scope 2, location-based (metric tons CO2e) (column 2) • Report your organization's Scope 2 emissions in CO_2e for the facility identified in column 1, on a location-based method, i.e. reflecting the average emissions intensity of grids on which energy consumption occurs. • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4). Scope 2, market-based (metric tons CO2e) (column 3) • This column only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3.

	• Report your organization's Scope 2 emissions in CO_2e for the facility identified in column 1, on a market-based method, i.e. reflecting emissions from electricity that companies have purposefully chosen (or their lack of choice). • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS and EU

(7.20.3) Break down your total gross global Scope 2 emissions by business activity.

Question details	
Question dependencies	This question only appears if you select "By activity" in response to 7.20.
Change from last year	Minor change
Rationale	Reporting emissions by activity allows a more in-depth understanding of business risks related to future regulation and climate-related issues, and allows organizations to identify potential opportunities to reduce emissions associated with operational activities.
Response options	Please complete the following table.

1	2	3
Activity	Scope 2, location-based (metric tons CO_2e)	Scope 2, market-based (metric tons CO_2e)
Text field [maximum 500 characters]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas].

[Add row]

Requested content	Activity (column 1) • Using no more than 500 characters, disclose the activity you are disclosing Scope 2 emissions for. Scope 2, location-based (metric tons CO2e) (column 2) • Report your organization's Scope 2 emissions in CO_2e for the activity reported in column 1, on a location-based method, i.e. reflecting the average emissions intensity of grids on which energy consumption occurs. • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4).

	Scope 2, market-based (metric tons CO2e) (column 3) • This column only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3. • Report your organization's Scope 2 emissions in CO_2e for the activity reported in column 1, on a market-based method, i.e. reflecting emissions from electricity that companies have purposefully chosen (or their lack of choice). • Negative numbers are not allowed as organizations are to report gross, not net figures. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4).
Requested content – [sector] (if applicable)	Note for agricultural sectors • You should provide Scope 2 emissions data pertaining to all your relevant business activity areas (i.e., agriculture/forestry, processing/manufacturing, and/or distribution), as indicated in 1.11. Note for organizations responding to high-impact sector requests • If your company's primary CDP sector is one of the following: OG, CO,TO, TS, MM, ST, CH or CE, the response to 7.20.3 is not required. Organizations responding to these requests are presented with additional questions on this topic (7.21,, 7.42, 7.42.1) relating specifically to activities in the sector. Your primary CDP sector is displayed in your response dashboard.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS and EU

(7.21) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

Question details	
Change from last year	Modified question
Rationale	Reporting emissions by activity allows a more in-depth understanding of business risks related to future regulation and climate-related issues, and allows organizations to identify potential opportunities to reduce emissions associated with operational activities.

1	2	3	4
Sector production activity	Scope 2, location-based, metric tons CO_2e	Scope 2, market-based (if applicable), metric tons CO_2e	Comment
Cement production activities	Numerical field [enter a number from 0-99,999,999 using a maximum of 3 decimal places]	Numerical field [enter a number from 0-99,999,999 using a maximum of 3 decimal places]	Text field [maximum 2,400 characters]

Chemicals production activities			
Coal production activities			
Metals and mining production activities			
Oil and gas production activities (upstream)			
Oil and gas production activities (midstream)			
Oil and gas production activities (downstream)			
Steel production activities			
Transport OEM activities			
Transport Services activities			

[Fixed row]

Requested content	General • This question requests gross global Scope 2 emissions (location- and market-based) by sector production activity, i.e. aggregated across all business divisions and/or facilities. • This question is based on question 7.7but is sector specific. Emissions deriving from the generation of electricity, steam, heat, and cooling that is purchased or acquired for consumption outside of your presented sector, should not be reported here. See the guidance in 7.19 for sector boundary definition. • If your organization only operates within the presented sector, then the emissions figures you report here are still likely to be lower than the figures you reported in 7.7. This is because for this question CDP encourages you to exclude activities that are not dependent on being in the presented high-intensity sector. The purpose is to improve the consistency and accuracy of sector emissions reporting. • If your organization operates in or owns assets across multiple sectors, then you should report emissions only for the presented sectors business division(s). Therefore, the figures you report here should be lower than the figures you reported in 7.7. • If your organization is active across multiple high intensity sectors, complete this table as it is presented. • Emissions must be reported in gross, not net figures. Therefore, negative numbers are not allowed. • Emission figures should be for the reporting year only (as defined by your answer to 1.4). • If your organization imports electricity, steam, heat or cooling from an entity which is outside the sector boundary, but is nonetheless owned by the wider organization, then you should count for this here as a Scope 2 emission. Because the emissions occur outside of your Scope 1 boundary, they are Scope 2 emissions. • Emissions estimates are acceptable, as long as there is transparency with regards to the estimation approach (what is estimated and how) and the data used for the analysis is adequate to support the objectives of the inventory. • For more information on how to report Scope 2 emissions, see the Technical Note on "Accounting of Scope 2 emissions", where you can find guidance on emission factors and the types that can be applied. Please also note that CH_4 and N_2O from electricity production should be included in the emissions factor calculation. • For further information, see GHG Protocol Scope 2 Guidance. • When accounting for your Scope 2 emissions, and should you need more information than provided in this guidance, you may want to consult your electricity suppliers, carbon advisor or verifier/assurer.

	Scope 2, location-based (metric tons CO2e) (column 2)
	• Report your organization's total gross global Scope 2 emissions in CO_2-equivalent for sector production activity listed in column 1, on a location-based method, i.e. reflecting the average emissions intensity of grids on which energy consumption occurs.
	
	Scope 2, market-based (if applicable), metric tons CO2e (column 3)
	• Report your organization's total gross global Scope 2 emissions in CO2-equivalent for sector production activity listed in column 1, on a market-based method, i.e. reflecting emissions from electricity that companies have purposefully chosen (or their lack of choice).
	
	Comment (column 4) (optional)
	• You can use this text field to enter any additional relevant information.
	
	Note for oil and gas sector
	• Rows will appear in this question corresponding to your selections in question 1.19
	• This question splits oil and gas activities into upstream, midstream and downstream as follows:
	  ○ Upstream includes exploration, development, and production of oil and gas.
	  ○ Midstream includes the transportation, storage, and distribution of crude oil and natural gas.
	  ○ Downstream includes refining, processing, distribution, and marketing of products derived. For this question, CDP also includes Chemicals in this category, which includes the manufacture, distribution and marketing of chemical products derived from oil and gas (petrochemicals).
	  ○ Transport, storage, and distribution activities considered a defining part of the oil and gas sector value chain, e.g. midstream activities, should be included for oil and gas production activities.
	  ○ Projects considered an essential part of the oil and gas sector, such as exploration and extraction projects, should be included for oil and gas production activities.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CE, CH, CO, MM, OG, ST, TO, TS

(7.22) Break down your gross Scope 1 and Scope 2 emissions between your consolidated accounting group and other entities included in your response.

Question details	
Change from last year	Modified guidance
Rationale	Awareness of emissions associated with the consolidated accounting group enables the organization to target actions to reduce emissions. The breakdown also provides data

	users with the opportunity to better understand the emissions sources and therefore risks and opportunities throughout the business.
Ambition	Companies are transparent about their emissions inventories, including the emissions associated with the consolidated accounting group.
Response options	Please complete the following table:

0	1	2	3	4
Group of entities	Scope 1 emissions (metric tons CO_2e)	Scope 2, location-based emissions (metric tons CO_2e)	Scope 2, market-based emissions (metric tons CO_2e)	Please explain
Consolidated accounting group	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Text field [maximum 2,500 characters]
All other entities				

[Fixed row]

Requested content	General The "Consolidated accounting group" refers to the group of entities for which information is included within your annual financial statements. For example, for an organization applying IFRS Accounting Standards, this group would comprise the parent organization and its consolidated subsidiaries. "All other entities" refers to any entities for which you have included emissions data for in 7.6 and 7.7, but do not fall within the consolidated accounting group. For example, for an entity applying IFRS Accounting Standards, these entities would include associates, joint ventures, and unconsolidated subsidiaries. If your response does not include any other entities, enter 0 in each column for the "All other entities" row, and specify this in column 4 "Please explain". The figures reported in this question should be a breakdown of the emissions reported for Scope 1 and Scope 2 in 7.6 and 7.7 respectively. Therefore: o Figures reported for Scope 1 (across both rows of column 1) should add up to those reported in 7.6. o Figures reported for Scope 2 (across both rows of column 2) should add up to those reported in 7.7 Scope 2, location-based (metric tons CO2e) (column 2) This column only appears if "We are reporting a Scope 2, location-based figure" is selected in 7.3 column 1. Scope 2, market-based (metric tons CO_2e) (column 3) This column only appears if "We are reporting a Scope 2, market-based figure" is selected in 7.3 column 2. Please explain (column 4) Provide a short description of what is included in each row, along with the approach you have taken to determining what is included in the consolidated accounting group.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All except FS

(7.23) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Question details	
Change from last year	No change
Rationale	Awareness of subsidiary-level emission figures enables a parent company to better target action to reduce emissions. The breakdown also provides investors and other data users with the opportunity of better understanding the emissions sources and therefore the risks and opportunities throughout the business.
Ambition	Companies are transparent about their emissions inventories, including their subsidiaries.
Response options	Select from: • Yes • No • Not relevant as we do not have any subsidiaries

Requested content	General • The "consolidation approach" identifies which entities are included within the reporting boundary. Unless stated otherwise, the information you provide in response to the CDP questionnaire should be presented as one "consolidated" result covering all of the companies, entities, businesses, etc., within your reporting boundary. • Select "Yes" if, based on your chosen consolidation approach (provided in 6.1), your responses to questions 7.6, 7.7 and 7.8 include emissions data from subsidiaries that fall within your reporting boundary, and you are able to provide a breakdown of these emissions by subsidiary. If you select "Yes" you will be asked to break down your Scope 1 and Scope 2 emissions by subsidiary in the subsequent question. • Select "No" if your organization does have subsidiaries which fall within your reporting boundary, but you are not able to breakdown emissions data from the subsidiaries included in your CDP response. Note that if the subsidiaries fall within your organization's reporting boundary and you are not including emissions data from the subsidiaries in your responses to 7.6, 7.7 and 7.8, you should disclose the subsidiaries as exclusions in 7.4.1. • Select "Not relevant as we do not have subsidiaries" if based on your chosen consolidation approach (provided in 6.1) you do not have any subsidiaries which fall within your organization's reporting boundary.
Explanation of terms	Subsidiary: a company owned or controlled by a parent company or holding company. Consolidation approach: the identification of entities (companies, businesses, other groups, etc.) relevant to the environmental impact of the responding organization. The GHG Protocol states that

	two distinct approaches may be used to consolidate GHG emissions; the equity share and the control approaches. Control can be defined in either financial (financial control) or operational (operational control) terms.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.23.1) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.23.
Change from last year	Minor change
Rationale	Awareness of subsidiary-level emissions enables a parent organization to target actions to reduce emissions. The breakdown also provides data users with the opportunity to better understand the emissions sources and therefore risks and opportunities throughout the business.
Ambition	Companies are transparent about their emissions inventories, including their subsidiaries.

1	2	3	4	5	6	7
Subsidiary name	Primary activity	Select the unique identifiers you are able to provide for this subsidiary	ISIN code – bond	ISIN code – equity	CUSIP number	Ticker symbol
Text field [maximum 200 characters]	Select from [Drop-down list of CDP-ACS activities]	Select all that apply: • ISIN code – bond • ISIN code - equity • CUSIP number • Ticker symbol • SEDOL code • LEI number • D-U-N-S number	Text field [maximum 12 characters]	Text field [maximum 12 characters]	Text field [maximum 9 characters]	Text field [maximum 5 characters]

		• Other unique identifier, please specify • No unique identifier				

8	9	10	11	12	13	14	15
SEDOL code	LEI number	D-U-N-S number	Other unique identifier	Scope 1 emissions (metric tons CO_2e)	Scope 2, location-based emissions (metric tons CO_2e)	Scope 2, market-based emissions (metric tons CO_2e)	Comment
Text field [maximum 7 characters]	Text field [maximum 20 characters]	Text field [maximum 9 characters]	Text field [maximum 50 characters]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places and no commas]	Text field [maximum 2,500 characters]

[Add row]

Requested content	General • Add a new row for each subsidiary you are providing emissions data for. You should aim to break down your Scope 1 and Scope 2 emissions by all subsidiaries that fall within your organization's reporting boundary. But note that the total emissions entered will not be cross-checked by CDP for consistency with your total emissions reported in 7.6 and 7.7. • Organizations should consistently apply the consolidation approach they have detailed in 6.1 to their subsidiaries. E.g. If using an equity share approach, you should disclose your subsidiaries' emissions according to this approach. This should be explained in the 'Comment' column. • If you are not able to provide a breakdown for all subsidiaries, please ensure that you have included at a minimum any subsidiaries that were requested to disclose to investors for the reporting year. • If no subsidiaries were requested to disclose to CDP in the reporting year, it is up to your organization to decide which subsidiaries to report on e.g. reporting on the subsidies that represent the largest proportion of emissions. • Emissions must be reported in gross, not net figures. Therefore, negative numbers are not allowed. • Emissions figures should be for the reporting year only (as defined by your answer to 1.4).

	• If you are unable to provide either a Scope 1 or Scope 2 emissions figure for a subsidiary, leave the relevant column blank and do not enter zero. • Entering zero indicates that you have measured the emissions and that they are equal to zero. Subsidiary name (column 1) • Provide the full legal entity name of the subsidiary you are entering data for. • The subsidiary name provided should be in its original language, not a translation. Primary activity (column 2) • Select the option that best describes the primary activity from which the subsidiary derives revenue. If the subsidiary engages in multiple activities, select the activity from which it derives the greatest share of its revenue. • For a full list of classifications including descriptions of each activity, see CDP's Activity Classification System. Select the unique identifier(s) you are able to provide for this subsidiary (column 3) • If your subsidiary organization has multiple unique identifiers, select all the unique identifiers you are able to provide. • For each unique identifier selected, columns 4-11 will appear for you to enter the unique identifier. • Ensure that you enter the correct format for the unique identifier(s) you are providing. For example, ISIN codes include a two-letter country code, followed by a nine-character alphanumeric identifier and a single check digit. Scope 2, market-based emissions (metric tons CO_2e) (column 14) • This column only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3. Comment (column 15) • You can use this text field to enter any additional relevant information. For example, you may wish to provide context to the subsidiaries you have included within your response to this question, based on your chosen consolidation approach.
Explanation of terms	• ISIN: International Securities Identification Number, a 12-character alphanumeric code used to identify a security, such as a stock or bond. It is structured with the first two letters referencing the country of origin of the issuer for the security, in accordance with ISO 3166. The second grouping consists of nine characters made up of digits and letters, which is the unique identifying code for the security. In the U.S. and Canada this is known as the CUSIP number (see below). The final digit is the check digit, which ensures the authenticity of the code. • CUSIP number: Committee on Uniform Security Identification Procedures number, a 9-character alphanumeric code that identifies a security for the purposes of facilitating clearing and settlement of trades. CUSIPs are used to distinguish, among other reasons, between multiple share classes or bond tranches. CUSIPs are mostly used in the United States and Canada. • Ticker symbol: A ticker symbol, also known as a stock symbol, is a unique series of letters assigned to a security for trading purposes. Ticker symbols are usually related to the organization's name, and additional letters denote additional characteristics such as share class or trading restrictions.

	• LEI number: The Legal Entity Identifier (LEI) is a 20-character, alpha-numeric code based on the ISO 17442 standard developed by the International Organization for Standardization (ISO). It connects to key reference information that enables clear and unique identification of legal entities participating in financial transactions. • SEDOL code: Stock Exchange Daily Official List code, a 7-character identification code consisting of two parts: a 6-character alphanumeric code and a trailing check digit. SEDOLs issued prior to January 26, 2004 were composed only of numbers. SEDOLs serve as the National Securities Identifying Number for all securities issued in the United Kingdom. • D-U-N-S: Dun & Bradstreet Universal Numbering System, a system of nine-digit numerical identifiers assigned by Dun & Bradstreet to business entities. The D-U-N-S number is used to establish and maintain a standardized business profile and is widely used for business credit reports.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.24) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Question details	
Change from last year	No change
Rationale	Emissions of methane, the main component of natural gas, represent a loss of resources that directly impact topline revenue for oil and gas organizations. Data users need rigorous, accurate, and comparable information to assess organizations' emissions of methane. By reporting emissions as a percentage of production or throughput, the resulting data becomes comparable between companies, regardless of size, and over time, as a given company's operations evolve.

1	2	3	4	5
Oil and gas business division	Estimated total methane emitted expressed as % of natural gas production or throughput at given division	Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division	Indicate whether your methane emissions figure is based on observational data	Details of methodology
Select all that apply: • Upstream • Midstream • Downstream • Chemicals • Other, please specify	Numerical field [enter a number from 0-100 using a maximum of three decimal places]	Numerical field [enter a number from 0-100 using a maximum of three decimal places]	Select from: • Observational data only • Both observational data and estimated or modelled data • Estimated or modelled data only	Text field [maximum 2,400 characters]

[Add row]

Requested content	General The values to be reported are the total combined gross Scope 1 methane emissions determined for the given business division(s) (including vents, leaks, etc.,) expressed as a percentage of the aggregated production or throughput of natural gas and total hydrocarbons, respectively, at the given business divisions. If you select "Other, please specify," provide a label for the oil and gas business division. Estimated total methane emitted expressed as % of natural gas production or throughput at given division (column 2) Please report your total methane emissions rate as a percentage of natural gas production or throughput for the selected business divisions. Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division (column 3) Please report your total methane emissions rate as a percentage of total hydrocarbon production or throughput for the selected business divisions. Details of methodology (column 5)

	Provide details of the methodology used to estimate the figures provided in column 2 and 3 for the selected business divisions. Provide an explanation of your data sources, indicating which (if any) were used in estimation or modelling and describing how these were used.
Explanation of terms	• Observational data: Data based on top-down methods, such as using airborne or satellite sensors. • Estimated/modelled data: Data based on bottom-up calculation approaches, such as multiplying activity data by standardized emission factors.
Additional information	• Methane emissions from the oil and gas sector: Methane metrics, which include emissions rates, will make data more actionable and aid in the assessment of methane performance. Emission rate refers to the percentage of total methane volume which is being lost as a function of production or throughput. The latest scientific studies on methane emissions from the natural gas and oil industries suggest that, in order to maximize the climate benefits of a transition from both diesel and coal to natural gas on all time scales, methane emissions from the industry must be limited to an emissions rate of 0.8%. This means that each individual segment throughout the natural gas value chain, from well site to burner tip, must contribute much less than 0.8%. (Adapted from EDF's report Rising Risk, January 2016)

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	OG

(7.25) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.

Question details	
Change from last year	No change
Rationale	Accounting for Scope 3, Category 1 emissions from purchased feedstock can help to identify the value chain components with greatest emission reduction potential, improve GHG performance of suppliers, and inform the development of sector-specific guidance for the chemical industry.
Response options	Please complete the following table.

1	2	3
Purchased feedstock	Percentage of Scope 3, Category 1 tCO_2e from purchased feedstock	Explain calculation methodology
Select from: • High Value Chemicals (Steam cracking) • Ammonia	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]

• Aromatics extraction • Methanol • Butylene • Propylene (FCC) • Ethanol • Butadiene (C4 sep.) • Nitric acid • Adipic acid • Caprolactam • Soda ash • Carbon black • Polymers • Specialty chemicals • Other base chemicals • Anthracite • Coal • Lignite • Coke • Patent fuel / BKB • Petroleum coke • Diesel oil • Gas oil • Heavy fuel oil • Oil shale • Gasoline • White Spirit / SBP • Lubricants • Naphtha • Special Naphtha • Propane liquid • Propane gas • Ethane • Butane • LPG • Refinery gas • Natural gas • Solid biomass • Liquid biofuel • Waste biofuel • Biogas • Other (please specify)		

[Add row]

Requested content	General • Complete this table for all feedstocks that you purchased. • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). Percentage of tCO2e from purchased feedstock (column 2) • Enter the percentage value of the CO_2e emissions that the selected feedstock contributes in relation to your total Scope 3, Category 1 emissions, which you can report in question C6.5.

	• The sum of percentages reported here should not reach 100 unless all of Scope 3, Category 1 emissions, as reported in C6.5, are covered by the selected feedstocks. • Fuel feedstocks are also included and contribute to your Scope 3, Category 1 emissions insofar as they are consumed as feedstocks and not consumed solely for energy purposes. Upstream indirect emissions from the consumption of fuels for energy purposes is covered by Scope 3, Category 3 "Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2". Explain calculation methodology (column 3) • Provide a short description of the types and sources of data used to calculate the CO_2e emissions of the selected feedstock in column 1, e.g. activity data, emission factors, GWPs and sources used. • Additionally, provide a description of the methods, assumptions, and allocation methods used.
Explanation of terms	Feedstocks: Feedstocks are starting materials, ranging from fossil fuels to biomass-based resources. These materials are fed into a process, and converted into other commodities or resources, which are either used directly or further transformed. For example, in the steel industry, coking coal is converted to coke, which is used in the steel production. In the petrochemical industry, gaseous feedstocks (ethane, propane, or butane) are used to produce high value chemicals. Scope 3, Category 1: Purchased goods and services: The category of Scope 3 emissions, as per GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, that includes all upstream (i.e., cradle-to-gate) emissions from the production of products purchased or acquired by the reporting company in the reporting year, not otherwise included in Categories 2 – 8. Products include both goods (tangible products) and services (intangible products). High Value Chemicals (Steam cracking): High value chemicals (HVCs) produced via steam cracking include ethylene, propylene from the pyrolysis gas of steam crackers, benzene (contained amounts, excluding extracted amounts), butadiene (also contained), acetylene, and hydrogen sold (as fuel). Steam cracking: Steam cracking is the main method of breaking down large molecules of hydrocarbons, in which a gaseous or liquid hydrocarbon is diluted with steam and then heated. The main product for steam cracking process is HVCs.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CH

(7.25.1) Disclose sales of products that are greenhouse gases.

Question details	
Change from last year	No change

Rationale	Reporting sales of products that are greenhouse gases allows a more in-depth understanding of your Scope 3 emissions and business risks associated with potential future climate-related regulation.
Response options	Please complete the following table:

Output product	Sales, metric tons	Comment
Carbon dioxide (CO_2)	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]
Methane (CH_4)		
Nitrous oxide (N_2O)		
Hydrofluorocarbons (HFC)		
Perfluorocarbons (PFC)		
Sulphur hexafluoride (SF_6)		
Nitrogen trifluoride (NF_3)		

[Fixed row]

Requested content	General • This question requests disclosure of sale of products that are greenhouse gases (GHG) reported in metric tons of the GHG sold and aggregated across your organization's reporting boundary. • These emissions count towards your Scope 3 category 11 "Use of Sold Products." • Emission of these gases inside your organizational boundary counts towards your Scope 1 emissions, for which you can report the total in CO_2e in question 7.6 and provide the breakdown for in CO_2e in question 7.15.1. Sales, metric tons (column 2) • Report your organization's total sales of GHG output product listed in column 1. Complete this column for all of your GHG output products. • If your organization has not sold this output product over the reporting year, enter 0 (zero). • Sales figures should be for the reporting year only (as defined by your answer to 1.4).
Explanation of terms	Greenhouse gases: In line with Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) and the amendment issued by the Greenhouse Gas Protocol on May 2013 the basket of greenhouse gases (GHGs) consists of: • Carbon dioxide (CO_2); • Methane (CH_4); • Nitrous oxide (N_2O); • Hydrofluorocarbon family of gases (HFCs); • Perfluorocarbon family of gases (PFCs); • Sulfur hexafluoride (SF_6), and; • Nitrogen trifluoride (NF_3). Nitrogen trifluoride (NF_3) is now considered a potent contributor to climate change and is therefore mandated to be included in national inventories under the UNFCCC. NF_3 should also be included in

	GHG inventories under the GHG Protocol Corporate Standard, and the GHG Protocol Corporate Value Chain (Scope 3) Standard.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CH

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

Question details	
Change from last year	Modified question
Rationale	This information provides clarity to requesting Supply Chain members on the emissions associated with goods and products sold to them over the reporting year. This supports transparency in emissions allocations, verification of these emissions allocations and methodologies used. This question also provides transparency regarding how data was acquired and used to derive emissions values allocated to requesting Supply Chain members.

1	2	3	4	5	6	7	8	9
Requesting member	Scope of emissions	Scope 3 category(ies)	Allocation level	Allocation level detail	Allocation method	Unit for market value or quantity of goods/services supplied	Market value or quantity of goods/services supplied to the requesting member	Emissions in metric tons of CO_2e
Select from: • Member drop-down list	Select from: •Scope 1 •Scope 2: location-based •Scope 2: market-based •Scope 3	Select all that apply: •Category 1: Purchased goods and services •Category 2: Capital goods •Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) •Category 4:	Select from: •Company wide •Business unit (subsidiary company) •Facility •Commodity	Text field [maximum 500 characters]	Select from drop-down list below	Select from drop-down list below	Numerical field [enter a number from 0-999,999,999,999,999 using a maximum of 4 decimal places]	Numerical field [enter a number from 0-999,999,999,999,999 using a maximum of 4 decimal places]

		Upstream transportation and distribution • Category 5: Waste generated in operations • Category 6: Business travel • Category 7: Employee commuting • Category 8: Upstream leased assets • Category 9: Downstream transportation and distribution • Category 10: Processing of sold products • Category 11: Use of sold products • Category 12: End-of-life treatment of sold products • Category 13: Downstream leased assets • Category 14: Franchises • Category 15: Investments						

		•Other (upstream) •Other (downstream)						

10	11	12	13	14
Uncertainty (± %)	Major sources of emissions	Allocation verified by a third party?	Please explain how you have identified the GHG source, including major limitations to this process and assumptions made	Where published information has been used, please provide a reference.
Percentage field [enter a percentage from 0-999]	Text field [maximum 2,500 characters]	Select from: • Yes • No	Text field [maximum 5,000 characters]	Text field [maximum 5,000 characters]

[Add row]

Allocation method (column 6)	
• Allocation not necessary due to type of primary data available • Allocation not necessary as secondary data used • Allocation based on mass of products purchased • Allocation based on the volume of products purchased • Allocation based on the energy content of products purchased • Allocation based on the chemical content of products purchased	• Allocation based on the number of units purchased • Allocation based on area • Allocation based on another physical factor • Allocation based on the market value of products purchased • Other allocation method, please specify

Unit for market value or quantity of goods/services supplied (column 7)	
• Currency • Kilograms • Pounds (lb) • Metric tons • Gallons • Liters • Cubic feet • Cubic meters	• Square meters • Hectares • Megawatt hours (MWh) • Full time equivalents (FTE) • Hours • Kilometers • Passenger kilometers • Other unit, please specify

Requested content	General • Note: Disclosers must check that the Requesting members presented in this table are correct for their organization for the reporting period. Scope of emissions (column 2) • The “Scope 2: market-based” dropdown only appears if you select if “We are reporting a Scope 2, market-based figure” in column “Scope 2, market-based” of 7.3.

- Use this column to specify which scope of your emissions you are allocating to your customers. Note that emissions that you allocate will be your customers' Scope 3 emissions, however it is up to your customer to allocate your organization's emissions into a specific Scope 3 category. You should only be allocating the emissions you stated in 7.6, 7.7 and 7.8. You can allocate either direct emissions from your company boundary (your Scope 1) or indirect emissions (your Scope 2 and 3). An explanation of defining Scopes 1, 2 and 3 can be found in the GHG Protocol Corporate Standard and the GHG Corporate Value Chain (Scope 3) Standard.
- Specify whether you are allocating your Scope 2 location-based, or your Scope 2 market-based figure. Companies are only required to allocate one Scope 2 figure.

Scope 3 categories (column 3)
- This column only appears if you select "Scope 3" in column 2 "Scope of emissions".

Allocation level detail (column 5)
- This column only appears if you select "Business Unit (subsidiary company)" or "Facility" in column 4 "Allocation level".
- If reporting an allocation by subsidiary, ensure that any subsidiary breakdowns reported in this question are also reported in 7.23.1 "Break down your gross Scope 1 and Scope 2 emissions by subsidiary". The same format for their name should be used across both questions.

Allocation method (column 6)
- Select the method your organization has used to attribute emissions to the requesting customer.
- Allocation based on mass, volume, energy content, chemical content, number of units and/or area of products purchased fall under "physical allocation"; market value of products purchased falls under "economic allocation."
- If "Allocation not necessary due to type of primary data available" or "Allocation not necessary as secondary data used", are selected, the calculation columns will not be presented.

Unit for market value or quantity of goods/services supplied (column 7)
- Your selection in this column should align with column 6, "Allocation method". For example, if "Allocation based on the area of products purchased" is selected, the unit may be cubic feet, cubic meters, square meters, or hectares. Or, if "Allocation based on the market value of products purchased" is selected, the unit will be "Currency"
- If "currency" is selected, the figure provided in column 8 "Market value or quantity of goods/services supplied to the requesting member" should be in the same currency that you selected in question 1.7 for all financial information disclosed throughout your response.

Market value or quantity of goods/services supplied to the requesting member (numerator) (column 8)
- Report the unit of goods/services provided to the customer.
- If you provide multiple goods/services that do not share a common unit, provide the market value of the goods and/or services supplied.

Emissions in metric tons of CO2e (column 9)
- Specify the metric tons of CO2e you are allocating to your customer for the scope given in column 2 "Scope of emissions".

	Major sources of emissions (column 11) • Describe significant sources of emissions for which you have provided a figure. The following list of examples is non-exhaustive: • Scope 1 emissions may be equipment in which fuel is burnt to provide heat (e.g. ovens, driers or kilns); emissions from organization owned or controlled vehicles; emissions from production processes e.g. in cement manufacture; • Scope 2 emissions may include electricity used to power production lines, lighting in offices, electricity for data centers, etc.; and • Scope 3 covers a broader range of possible sources. For example, the "Scope 3, Business travel" category would include air travel for organization employees; the "Scope 3, Capital goods" category would include the manufacture of steel to make heavy machinery or infrastructure; and the "Scope 3, Waste generated in operations category" would include emissions from out-sourced treatment of organic waste. Please explain how you have identified the GHG source, including major limitations to this process and assumptions made (column 13) • Organizations often have many different sources of emissions and this question seeks to understand how you have selected major emission sources. • The GHG Protocol Corporate Standard states organization should report on all emissions within their chosen organizational boundary. This defines the sources of emissions on which you are going to report. There are three options: sources in which the organization has an equity share; sources over which the organization has financial control; sources over which the company has operational control. If you exclude any sources within the boundary, you are asked to disclose and justify those exclusions. • However, it may be that you have been limited by your knowledge of potential emission sources or made assumptions about which sources were the largest. Or alternatively, that certain sources do not play a role for the specific products your customers are purchasing from you. Please explain the thinking behind your selection including the difficulties that you encountered. Where published information has been used, please provide a reference (column 14) • To allocate emissions to your customer you may have used your own (primary) data in answering this question. Alternatively, you may have relied on publications that give industry-average (secondary) data for particular materials or processes or you may have used a mixture of both. In order to make the origin of the data clear, provide references where published information has been used, as well as flag where they have been used.
Additional information	For further information on allocation methods and dividing emissions of different goods and services between your respective customers, see Chapter 8 (page 86) of the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Tags		
Authority type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Change from last year	No change
Rationale	The purpose of this question is to provide your customers with insights about the challenges in assigning specific emissions to them from your products or services. In certain cases, it might be that specific solutions can be found between you and your customer to overcome those challenges.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2
Allocation challenges	Please explain what would help you overcome these challenges
Select from: • Diversity of product lines makes accurately accounting for each product/product line cost ineffective • Customer base is too large and diverse to accurately track emissions to the customer level • Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult • Doing so would require we disclose business sensitive/proprietary information • We face no challenges • Other, please specify	Text field [maximum 2,500 characters]

[Fixed row]

Tags		
Authority type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Change from last year	No change
Rationale	This question aims to provide your customers with insights and transparency into how you aim to develop your capabilities to allocate emissions to them, and thus allow them to gain a greater understanding of the emissions and/or energy intensity of the goods/services that you provide to them.
Response options	Please complete the following table:

1	2	3	4
Do you plan to develop your capabilities to allocate emissions to your customers in the future?	Describe how you plan to develop your capabilities	Primary reason for no plans to develop your capabilities to allocate emissions to your customers	Explain why you do not plan to develop capabilities to allocate emissions to your customers
Select from: • Yes • No	Text field [maximum 5,000 characters]	Select from: • Lack of internal resources, capabilities, or expertise (e.g., due to organization size) • No standardized procedure • Not an immediate strategic priority • Judged to be unimportant or not relevant • Capabilities to allocate emissions to customers already maximized • Other, please specify	Text field [maximum 5,000 characters]

[Fixed row]

Requested content	Describe how you plan to develop your capabilities (column 2)
	• This column only appears if you select "Yes" in column 1.
	• Provide a description of how your organization plans to develop its capabilities to allocate emissions to its customers in the future.
	
	Explain why you do not plan to develop capabilities to allocate emissions to your customers (column 4)
	• This column only appears if you select "No" in column 1.
	• Include in your answer details of:
	  o Why you do not plan to develop capabilities to allocate emissions to your customers;
	  o The barriers that your organization faces that prevent it from allocating emissions to your customers; and;
	  o Potential circumstances that might encourage your organization to develop capabilities to allocate emissions to your customers.

Tags		
Authority type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

Energy-related activities

Section Overview	Energy-related activities represent, for many sectors, the most significant GHG emission sources. This section provides transparency on the consumption and generation of energy by organizations. Measuring and reporting on energy consumption is a crucial prerequisite to accurately calculate both Scope 1 and Scope 2 emissions. Emissions from fuel combustion forms the bulk of most organization's Scope 1 emissions, so having accurate and thorough data on fuel consumption is key to accurately report these. Similarly, measuring and accounting all forms of purchased and acquired energy provides the underlying data from which to measure Scope 2 emissions. Throughout this section, you should enter all energy data in Mega-Watt-hours (MWh) as specified in the column headers. If your raw data is in energy units other than MWh, such as Giga-Joules (GJ) or British Thermal Units (Btu), then you should convert to MWh. Further guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh".

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

Question details	
Change from last year	No change
Rationale	The aim of this question is to identify the degree to which your organization's activities are sensitive to energy costs and energy supply.
Response options	Please select one of the following options: • 0% • More than 0% but less than or equal to 5% • More than 5% but less than or equal to 10% • More than 10% but less than or equal to 15% • More than 15% but less than or equal to 20% • More than 20% but less than or equal to 25% • More than 25% but less than or equal to 30% • More than 30% but less than or equal to 35% • More than 35% but less than or equal to 40% • More than 40% but less than or equal to 45% • More than 45% but less than or equal to 50% • More than 50% but less than or equal to 55% • More than 55% but less than or equal to 60% • More than 60% but less than or equal to 65% • More than 65% but less than or equal to 70%

	• More than 70% but less than or equal to 75% • More than 75% but less than or equal to 80% • More than 80% but less than or equal to 85% • More than 85% but less than or equal to 90% • More than 90% but less than or equal to 95% • More than 95% but less than or equal to 100% • Don't know

Requested content	General • Ensure that the boundary used for calculating your operational spend is the same as that for your energy spend (i.e. it includes the same facilities, geographies, etc.). • "Operational spend" should exclude extraordinary expenses such as gains or losses on the sale of assets. The calculation should also exclude the cost of interest or taxes on profits.
Explanation of terms	Operational spend: Operational spend should be the sum of the costs for the following two types of costs to the business: o Cost of goods sold - also known as 'direct costs'. This generally refers to the raw material, energy and labor costs directly identified in the cost of the end product. These costs fluctuate and vary depending on the number or volume of goods sold. o Operating costs - also known as 'indirect costs' or 'overheads'. This generally refers to the essential expenses incurred in order to maintain the business including wages, rent, transport, energy (electricity, fuel, etc.), maintenance, and so on. These expenses cannot be attributed to the manufacture of a particular job or the provision of a particular service - they are standard costs that apply regardless of the volume of goods produced.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

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

Question details	
Question dependencies	• The energy-related activities that you select in response to 7.30 determine which energy breakdowns you will be prompted to respond to in the proceeding questions. Please note, if your response to 7.30 is amended, data in dependent questions may be erased.
Change from last year	No change
Rationale	This question provides data users with information on the organization's consumption of energy forms relating to Scope 1 and Scope 2 emissions, and transparency on the generation of energy.

Response options	Please complete the following table:

1	2
Activity	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Select from: • Yes • No
Consumption of purchased or acquired electricity	
Consumption of purchased or acquired heat	
Consumption of purchased or acquired steam	
Consumption of purchased or acquired cooling	
Generation of electricity, heat, steam, or cooling	

[Fixed row]

Requested content	General Consumption of fuel (excluding feedstocks) (Row 1) • You should select 'Yes' in row 1 'Consumption of fuel (excluding feedstocks)' if fuel was consumed inside your organizational boundary in the reporting year. All fuels accounted for in the calculation of Scope 1 emissions (7.6) and fuels accounted for in the calculation of emissions from biogenic carbon (7.12.1) are included. Consumption of nuclear fuel is not included. Consumption of purchased or acquired electricity heat, steam and/or cooling (Rows 2-5) • You should select 'Yes' in rows 2-5 according to whether your organization has consumed electricity, heat, steam, and/or cooling that was purchased or acquired, i.e. brought into the organizational boundary. This excludes consumption of electricity, heat, steam or cooling that was produced by the organization, i.e. from inside the organizational boundary. It also excludes purchased or acquired electricity, heat, steam or cooling that is not consumed inside the organizational boundary. • Purchased or acquired electricity, heat, steam or cooling that is wasted should still be counted as consumption. • The activities of rows 2-5 are aligned with the boundary for Scope 2 emissions. Generation of electricity, heat, steam, or cooling (Row 6) • You should select 'Yes' in row 6 if your organization generated electricity, heat, steam, or cooling in the reporting year, regardless of whether this generation was consumed, exported, or wasted.
Explanation of terms	Excluding feedstocks: Fuels consumed as feedstocks are fuels that are not combusted for energy purposes. For example, naphtha and ethane are feedstocks that may be converted into petrochemical products such as ethylene and should not be included. The steel industry is a special case because coke and fuel injectants consumed at the blast furnace serve as feedstocks and a source of energy. These fuels are considered feedstocks and should not be counted. However, all fuels consumed that are derived from fuel feedstocks, e.g. blast furnace gas, coke oven gas, and

	smelting reduction gas, should be counted. Companies that consume fuel as feedstocks will have the opportunity to disclose these fuels in sector specific questions. Purchased or acquired electricity, steam, heat, cooling: Specific information on these energy carriers can be found in section 5.3.1 and Appendix A of the GHG Protocol Scope 2 Guidance. The terms 'purchased' and 'acquired' are used when your organization has received the energy from a third party. This rules out energy that is sourced from within the organizational/sector boundary. It should be noted that purchased or acquired heat does not include the heat content, or calorific value, of fuels that are purchased or acquired by the organization. This is accounted for at the point of fuel consumption, which falls inside the Scope 1 boundary. You should also be aware that steam, heat or cooling received via direct line as 'waste' from an industrial process, should still be accounted for if it is consumed.. The terms 'purchased' and 'acquired' are used when your organization has received the energy from a third party. This rules out energy that is sourced from within the organizational/sector boundary. It should be noted that purchased or acquired heat does not include the heat content, or calorific value, of fuels that are purchased or acquired by the organization. This is accounted for at the point of fuel consumption, which falls inside the Scope 1 boundary. You should also be aware that steam, heat or cooling received via direct line as 'waste' from an industrial process, should still be accounted for if it is consumed.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.30.1) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

Question details	
Question dependencies	• This question appears if you selected "Yes" to any of the activities listed in 7.30. A row will appear in this table for each energy-related activity selected in 7.30. The "Total energy consumption" row will always appear.
Change from last year	Modified guidance
Rationale	Given the importance of energy consumption in emissions accounting, this question attempts to provide transparency to data users on the consumption of energy by the organization. The question provides the opportunity for organizations to disclose their total energy consumption and distinguish renewable and non-renewable forms of energy.
Response options	Please complete the following table.

1	2	3	4	5
Activity	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable + non-renewable) MWh

Consumption of fuel (excluding feedstock)	Select from: • LHV (lower heating value) • HHV (higher heating value) • Unable to confirm heating value	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]
Consumption of purchased or acquired electricity	N/A			
Consumption of purchased or acquired heat	N/A			
Consumption of purchased or acquired steam	N/A			
Consumption of purchased or acquired cooling	N/A			
Consumption of self-generated non-fuel renewable energy	N/A		N/A	
Total energy consumption	N/A			

[Fixed row]

Requested content	General • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • The calculation of renewable energy consumed should be based on the same data sources as your applied emission factors used in the calculation of Scope 2 emissions figure reported in 7.7 and should be consistent with the market-based Scope 2 emission factor hierarchy. For example, if you purchased Energy Attribute Certificates (EACs) to claim half of your electricity consumption as renewable, you will need to use the relevant data source(s) from the emission factor hierarchy (e.g. residual mix data) to work out the share of renewables in the remaining half. • This table is for gross energy consumption data only. You should not provide net consumption nor deduct for energy produced or exported from the organizational boundary. Because feedstock fuels are excluded from this question, this approach should not lead to double counting. • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh". Activity (column 1) • You will be presented with a row for each activity selected in 7.30. Consumption of fuel (excluding feedstock) • All fuel consumed for energy purposes inside the organizational boundary should be included, regardless of whether the fuel was purchased or produced by the organization. Fuel consumed as a feedstock (used for the production of another fuel) should not be included. The produced fuel should still be included if it is consumed within the organizational boundary.

	• If you do not have exact consumption data, you may alternatively estimate your company's consumption by reviewing fuel and energy purchasing orders. Consumption of self-generated non-fuel renewable energy • If your organization produces renewable energy that is not based on fuel (such as solar, wind, hydro, geothermal, marine), then any consumption of this energy should be entered here. • Consumption of renewable fuels (such as solid and liquid biofuels and biogas) should be excluded because these are accounted for in the row "Consumption of fuel (excluding feedstock)". • All forms of non-fuel renewable energy - electricity, heat, steam, or cooling – shall be included. Total energy consumption • The data entered in each column of this row should equal the sum of all the above rows (if the above rows have been fully disclosed for). • If you do not disclose data for specific energy carriers in the rows above, but you are able to enter the total energy consumed by your organization, then you should do so. Heating value (column 2) • This column is only applicable to the consumption of fuels because it is a measure of combustion energy. In the other rows you should select "Unable to confirm heating value". • Fuel energy data in HHV is typically used in the United States and Canada, whereas LHV is more commonly the unit used in other countries/areas and by international bodies. If you do not know the unit applicable to your raw data, you may wish to infer it based on the location from which the data is sourced, i.e. if the fuel related data is sourced from outside of the United States and Canada, then it is likely that LHV is applicable. MWh from renewable sources (column 3) • Waste energy should not be included if it is derived from fossil fuels. • Hydrogen should not be included if it is derived from fossil fuels. • Blended fuels deriving from both renewable and non-renewable sources should be split by the proportion contained from each source. For municipal waste and refuse-derived fuel, only the fraction of the fuel that is derived from biomass can be included as renewable energy, when calculating renewable energy consumption totals. Further explanations of municipal waste and a glossary of fuel definitions is provided in the CDP Technical Note: "Fuel Definitions". MWh from non-renewable sources (column 4) • All energy not identified as deriving from renewable sources should be entered, e.g. coal, oil, natural gas, etc. • Direct consumption of nuclear fuel should not be included, as this is covered in more detail in questions for electric utilities. Consumption of purchased or acquired electricity, steam, heat and/or cooling from nuclear sources, however, should be included.

Explanation of terms	Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004). Heating Value: Lower heating value (LHV) and Higher heating value (HHV), also known as net calorific value (NCV) and gross calorific value (GCV) respectively, are different measures of heat energy released from fuel combustion. Figures measured in HHV are larger because HHV includes the latent heat of water vaporization from combustion, whereas LHV does not. The difference between LHV and HHV is related to the fuel's hydrogen content.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.30.2) Report your organization's energy consumption totals (excluding feedstocks) for cement production activities in MWh.

Question details	
Question dependencies	This question only appears if you select "Yes" to any of the activities listed in 7.30. A row will appear in this table for each energy-related activity selected in 7.30. The "Total energy consumption" row will always appear.
Change from last year	Modified guidance
Rationale	Question 7.30 has been modified and represented here for the cement sector. This is to enable consistency of reporting across organizations with varying coverage over activities that may be separate from the cement sector or independent of the production activities defining the cement sector. Cement is also one of the most energy intensive sectors of industry, so it is important to represent the sector separately from outside activities.
Response options	Please complete the following table:

Activity	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	Select from: • LHV (lower heating value) • HHV (higher heating value) • Unable to confirm heating value	Numerical field [enter a number from 0-9,999,999,999 using a maximum of 2 decimal places]

Consumption of purchased or acquired electricity	N/A	
Consumption of other purchased or acquired energy (heat, steam and/or cooling)	N/A	
Total energy consumption	N/A	

[Fixed row]

Requested content	General • This question is based on question 7.30.1 but is sector specific. Energy consumed outside the cement sector should not be reported here. • The boundary surrounding your organization in the cement sector shall hereby be referred to as the organizational/sector boundary. The sector boundary for energy consumption should align with the sector boundary for emissions, which is described in the guidance to question 7.19. • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh". Activity (column 1) • You will be presented with a row for each activity selected in 7.30. Heating value (column 2) • This column is only applicable to the consumption of fuels, because it is a measure of combustion energy. In the other rows you should select "Unable to confirm heating value". • Fuel energy data in HHV is typically used in the United States and Canada, whereas LHV is more commonly the unit used in other countries/areas and by international bodies. If you do not know the unit applicable to your raw data, you may wish to infer it based on the location from which the data is sourced, i.e. if the fuel related data is sourced from outside of the United States and Canada, then it is likely that LHV is applicable. Consumption of fuel • All fuel consumed for energy purposes inside the organizational/sector boundary should be included, regardless of whether the fuel was purchased or produced by the organization. This includes the combustion of alternative fuels, such as biomass, waste, waste tires and hazardous wastes in co-incineration practices. Fuel consumed as a feedstock (used for the production of another fuel) should not be included. The produced fuel should still be included if it is consumed within the organizational boundary. • If you do not have exact consumption data, you may alternatively estimate your company's consumption by reviewing fuel and energy purchasing orders. Total energy consumption • The data entered in this row should equal the sum of all the above rows (if the above rows have been fully disclosed for).

	• If you do not disclose data for specific energy carriers in the rows above, but you are able to enter the total energy consumed by your organization inside the cement sector boundary, then you should do so.
Explanation of terms	• Heating Value: Lower heating value (LHV) and Higher heating value (HHV), also known as net calorific value (NCV) and gross calorific value (GCV) respectively, are different measures of heat energy released from fuel combustion. Figures measured in HHV are larger because HHV includes the latent heat of water vaporization from combustion, whereas LHV does not. The difference between LHV and HHV is related to the fuel's hydrogen content.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CE

(7.30.3) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

Question details	
Question dependencies	This question only appears if you select "Yes" to any of the activities listed in 7.30. A row will appear in this table for each energy-related activity selected in 7.30. The "Total energy consumption" row will always appear.
Change from last year	Modified guidance
Rationale	Question 7.30.1 has been modified and represented here for the chemicals sector. This is to enable consistency of reporting across organizations with varying coverage over activities that may be separate from the chemicals sector or independent of the production activities defining the chemicals sector. Chemicals is also one of the largest energy users of industry, so it is important to represent the sector separately from outside activities.
Response options	Please complete the following table:

Activity	Heating value	MWh consumed from renewable sources inside chemical sector boundary	MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)	MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical	Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

				sector boundary	
Consumption of fuel (excluding feedstocks)	Select from: • LHV (lower heating value) • HHV (higher heating value) • Unable to confirm heating value	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]
Consumption of purchased or acquired electricity	N/A				
Consumption of purchased or acquired heat	N/A				
Consumption of purchased or acquired steam	N/A				
Consumption of purchased or acquired cooling	N/A				
Consumption of self-generated non-fuel renewable energy	N/A		N/A	N/A	
Total energy consumption	N/A				

[Fixed row]

Requested content	General • This question is based on question 7.30.1 but is sector specific. Energy consumed outside the chemicals sector should not be reported here. • The boundary surrounding your organization in the chemicals sector shall hereby be referred to as the organizational/sector boundary. The sector boundary for energy consumption should align with the sector boundary for emissions, which is described in the guidance to question 7.19. • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • You should use the same approach as in question 7.30.1 to calculate the share of renewable energy consumed inside the chemical sector boundary in this question. • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh." Activity (column 1) • You will be presented with a row for each activity selected in 7.30.

	Consumption of fuel (excluding feedstocks) • All fuel consumed for energy purposes inside the organizational/sector boundary should be included, regardless of whether the fuel was purchased or produced by the organization. Fuel consumed as a feedstock (used for the production of another fuel) should not be included. The produced fuel should still be included if it is consumed within the organizational boundary. • If you do not have exact consumption data, you may alternatively estimate your company's consumption by reviewing fuel and energy purchasing orders. • Companies that recover waste heat/gases generated from the consumption of fuel feedstocks in a primary industrial process and utilize the waste heat/gases to produce energy in a secondary process should report the consumption of the recovered waste heat/gases in this row, in column 5 "MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary". An example of such a process is the recovery of the excess heat from the exothermic reaction in the process of sulfuric acid production. Note that this only applies for processes within the chemical sector boundary where the waste heat/gas is derived from fuel feedstocks – consumption of waste heat/gas that is derived from fuels should not be included, as this would be double counting. Consumption of purchased or acquired electricity, heat, steam and/or cooling • Companies that outsource the recovery of their waste heat/gases from processes using fuel feedstocks to a third party and purchase back the energy generated from these recovered waste heat/gases, should report the consumption of this purchased energy in column 5 "MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary" for the relevant row (i.e. electricity, heat steam and/or cooling). Consumption of self-generated non-fuel renewable energy • If your organization produces renewable energy that is not based on fuel (such as solar, wind, hydro, geothermal, marine), then any consumption of this energy should be entered here. • Consumption of renewable fuels (such as solid and liquid biofuels and biogas) should be excluded because these are accounted for in the row "Consumption of fuel (excluding feedstock)". • All forms of non-fuel renewable energy - electricity, heat, steam, or cooling – shall be included. Total energy consumption • The data entered in this row should equal the sum of all the above rows (if the above rows have been fully disclosed for). • If you do not disclose data for specific energy carriers in the rows above, but you are able to enter the total energy consumed by your organization inside the chemicals sector boundary, then you should do so. Heating value (column 2) • This column is only applicable to the consumption of fuels, because it is a measure of combustion energy. In the other rows you should select "Unable to confirm heating value".

	• Fuel energy data in HHV is typically used in the United States and Canada, whereas LHV is more commonly the unit used in other countries/areas and by international bodies. If you do not know the unit applicable to your raw data, you may wish to infer it based on the location from which the data is sourced, i.e. if the fuel related data is sourced from outside of the United States and Canada, then it is likely that LHV is applicable. MWh consumed from renewable sources inside chemical sector boundary (column 3) • Hydrogen should not be included if it is derived from fossil fuels. • Blended fuels deriving from both renewable and non-renewable sources should be split by the proportion contained from each source. For municipal waste and refuse-derived fuel, only the fraction of the fuel that is derived from biomass can be included as renewable energy, when calculating renewable energy consumption totals. Further explanations of municipal waste and a glossary of fuel definitions is provided in the CDP Technical Note: "Fuel Definitions". • Note that consumption of waste heat/gases recovered from processes using fuel feedstocks should not be included here. Although low carbon, this energy is considered non-renewable and will be captured in column 5. MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases) (column 4) • All energy not identified as deriving from renewable sources should be entered, e.g. coal, oil, natural gas, etc. • Note that consumption of waste heat/gases recovered from processes using fuel feedstocks should not be included here. This energy is considered non-renewable but is captured separately in column 5. MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (column 5) • Companies that recover and consume waste heat/gases generated from the consumption of fuel feedstocks to produce energy should report the consumption of the recovered waste heat/gases in this column. • Note that this only applies for processes within the chemical sector boundary where the waste heat/gas is derived from fuel feedstocks – consumption of waste heat/gas that is derived from fuels should not be included, as this would be double counting.
Explanation of terms	• Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004). • Heating Value: Lower heating value (LHV) and Higher heating value (HHV), also known as net calorific value (NCV) and gross calorific value (GCV) respectively, are different measures of heat energy released from fuel combustion. Figures measured in HHV are larger because HHV includes the latent heat of water vaporization from combustion, whereas LHV does not. The difference between LHV and HHV is related to the fuel's hydrogen content.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CH

(7.30.4) Report your organization's energy consumption totals (excluding feedstocks) for metals and mining production activities in MWh.

Question details	
Question dependencies	This question appears if you selected "Yes" to any of the activities listed in 7.30. A row will appear in this table for each energy-related activity selected in 7.30. The "Total energy consumption" row will always appear.
Change from last year	Modified guidance
Rationale	Question 7.30.1 has been modified and represented here for the metals and mining sector. This is to enable consistency of reporting across organizations with varying coverage over activities that may be separate from the metals and mining sector or independent of the production activities defining the metals and mining sector. Metals and mining activities can also be particularly energy intensive, so it is important to represent the sector separately from outside activities.
Response options	Please complete the following table:

Activity	Heating value	Total MWh
Consumption of fuel (excluding feedstocks)	Select from: • LHV (lower heating value) • HHV (higher heating value) • Unable to confirm heating value	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]
Consumption of purchased or acquired electricity	N/A	
Consumption of purchased or acquired heat	N/A	
Consumption of purchased or acquired steam	N/A	
Consumption of purchased or acquired cooling	N/A	

Consumption of self-generated non-fuel renewable energy	N/A	
Total energy consumption	N/A	

[Fixed row]

Requested content	General • This question is based on question 7.30.1 but is sector specific. Energy consumed outside the metal and mining sector should not be reported here. • The boundary surrounding your organization in the metals and mining sector shall hereby be referred to as the organizational/sector boundary. The sector boundary for energy consumption should align with the sector boundary for emissions, which is described in the guidance for question 7.19. • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • This table is for gross energy consumption data only. You should not provide net consumption nor deduct for energy produced or exported from the organizational/sector boundary. Because feedstock fuels are excluded from this question, this approach should not lead to double counting. • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh". Activity (column 1) • You will be presented with a row for each activity selected in 7.30. Heating value (column 2) • This column is only applicable to the consumption of fuels because it is a measure of combustion energy. In the other rows you should select "Unable to confirm heating value". • Fuel energy data in HHV is typically used in the United States and Canada, whereas LHV is more commonly the unit used in other countries/areas and by international bodies. If you do not know the unit applicable to your raw data, you may wish to infer it based on the location from which the data is sourced, i.e. if the fuel related data is sourced from outside of the United States and Canada, then it is likely that LHV is applicable. Consumption of fuel (excluding feedstocks) • All fuel consumed for energy purposes inside the organizational/sector boundary should be included, regardless of whether the fuel was purchased or produced by the organization. Fuel consumed as a feedstock (used for the production of another fuel) should not be included. The produced fuel should still be included if it is consumed within the organizational boundary. • If you do not have exact consumption data, you may alternatively estimate your company's consumption by reviewing fuel and energy purchasing orders. Consumption of self-generated non-fuel renewable energy

	• If your organization produces renewable energy that is not based on fuel (such as solar, wind, hydro, geothermal, marine), then any consumption of this energy should be entered here. • Consumption of renewable fuels (such as solid and liquid biofuels and biogas) should be excluded because these are accounted for in the row "Consumption of fuel (excluding feedstock)". • All forms of non-fuel renewable energy - electricity, heat, steam, or cooling – shall be included. Total energy consumption • The data entered in this row should equal the sum of all the above rows (if the above rows have been fully disclosed for). • If you do not disclose data for specific energy carriers in the rows above, but you are able to enter the total energy consumed by your organization inside the metals and mining sector boundary, then you should do so.
Explanation of terms	• Heating Value: Lower heating value (LHV) and Higher heating value (HHV), also known as net calorific value (NCV) and gross calorific value (GCV) respectively, are different measures of heat energy released from fuel combustion. Figures measured in HHV are larger because HHV includes the latent heat of water vaporization from combustion, whereas LHV does not. The difference between LHV and HHV is related to the fuel's hydrogen content.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	MM

(7.30.5) Report your organization's energy consumption totals (excluding feedstocks) for steel production activities in MWh.

Question details	
Question dependencies	This question only appears if you selected "Yes" to any of the activities listed in 7.30. A row will appear in this table for each energy-related activity selected in 7.30. The "Total energy consumption" row will always appear.
Change from last year	Modified guidance
Rationale	Question 7.30.1 has been modified and represented here for the steel sector. This is to enable consistency of reporting across organizations with varying coverage over activities that may be separate from the steel sector or independent of the production activities defining the steel sector. Steel is also one of the most energy intensive sectors of industry, so it is important to represent the sector separately from outside activities.

Response options	Please complete the following table:

Activity	Heating value	MWh consumed from renewable sources inside steel sector boundary	MWh consumed from non-renewable sources inside steel sector boundary (excluding recovered waste heat/gases)	MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside steel sector boundary	Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside steel sector boundary
Consumption of fuel (excluding feedstocks)	Select from: • LHV (lower heating value) • HHV (higher heating value) • Unable to confirm heating value	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]
Consumption of purchased or acquired electricity	N/A				
Consumption of purchased or acquired heat	N/A				
Consumption of purchased or acquired steam	N/A				
Consumption of purchased or acquired cooling	N/A				
Consumption of self-generated non-fuel renewable energy	N/A		N/A	N/A	
Total energy consumption	N/A				

[Fixed row]

Requested content	General • This question is based on question 7.30.1 but is sector specific. Energy consumed outside the steel sector should not be reported here. • The boundary surrounding your organization in the steel sector shall hereby be referred to as the organizational/sector boundary. The sector boundary for energy consumption should align with the sector boundary for emissions, which is described in the guidance for question 7.19.

	• Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • You should use the same approach as in question 7.30.1 to calculate the share of renewable energy consumed inside the steel sector boundary in this question. • This table is for gross energy consumption data only. You should not provide net consumption nor deduct for energy produced or exported from the organizational/sector boundary. Because feedstock fuels are excluded from this question, this approach should not lead to double counting. • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh". Activity (column 1) • You will be presented with a row for each activity selected in 7.30. Consumption of fuel (excluding feedstocks) • All fuel consumed for energy purposes inside the organizational/sector boundary should be included, regardless of whether the fuel was purchased or produced by the organization. Fuel consumed as a feedstock (used for the production of another fuel) should not be included. The produced fuel should still be included if it is consumed within the organizational boundary. • For example, consumption of reducing agents in the blast furnace (e.g. PCI coal and coke), or consumption of coal at the coke ovens should not be included. However, combustion of all process by-product gases should be included (in column 5). • If you do not have exact consumption data, you may alternatively estimate your company's consumption by reviewing fuel and energy purchasing orders. • Companies that recover waste heat/gases generated from the consumption of fuel feedstocks in a primary industrial process and utilize the waste heat/gases to produce energy in a secondary process should report the consumption of the recovered waste heat/gases in this row, in column 5 "MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside steel sector boundary". An example is the consumption of recovered Blast Furnace Gas (BFG), Coke Oven Gas (COG), and/or Smelting Reduction Gas (SRG) for use as a source of energy. Note that this only applies for processes within the steel sector boundary where the waste heat/gas is derived from fuel feedstocks – consumption of waste heat/gas that is derived from fuels should not be included, as this would be double counting. Consumption of purchased or acquired electricity, heat, steam and/or cooling • Companies that outsource the recovery of their waste heat/gases from processes using fuel feedstocks to a third party and purchase back the energy generated from these recovered waste heat/gases, should report the consumption of this purchased energy in column 5 "MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside steel sector boundary" for the relevant row (i.e. electricity, heat steam and/or cooling). Consumption of self-generated non-fuel renewable energy

	• If your organization produces renewable energy that is not based on fuel (such as solar, wind, hydro, geothermal, marine), then any consumption of this energy should be entered here. • Consumption of renewable fuels (such as solid and liquid biofuels and biogas) should be excluded because these are accounted for in the row "Consumption of fuel (excluding feedstock)". • All forms of non-fuel renewable energy - electricity, heat, steam, or cooling – shall be included. Total energy consumption • The data entered in this row should equal the sum of all the above rows (if the above rows have been fully disclosed for). • If you do not disclose data for specific energy carriers in the rows above, but you are able to enter the total energy consumed by your organization inside the steel sector boundary, then you should do so. Heating value (column 2) • This column is only applicable to the consumption of fuels, because it is a measure of combustion energy. In the other rows you should select "Unable to confirm heating value". • Fuel energy data in HHV is typically used in the United States and Canada, whereas LHV is more commonly the unit used in other countries/areas and by international bodies. If you do not know the unit applicable to your raw data, you may wish to infer it based on the location from which the data is sourced, i.e. if the fuel related data is sourced from outside of the United States and Canada, then it is likely that LHV is applicable. MWh consumed from renewable sources inside steel sector boundary (column 3) • Waste energy should not be included if it is derived from fossil fuels. • Hydrogen should not be included if it is derived from fossil fuels. • Blended fuels deriving from both renewable and non-renewable sources should be split by the proportion contained from each source. For municipal waste and refuse-derived fuel, only the fraction of the fuel that is derived from biomass can be included as renewable energy, when calculating renewable energy consumption totals. Further explanations of municipal waste and a glossary of fuel definitions is provided in the CDP Technical Note: "Fuel Definitions". • Note that consumption of waste heat/gases recovered from processes using fuel feedstocks should not be included here. Although low carbon, this energy is considered non-renewable and will be captured in column 5. MWh consumed from non-renewable sources inside steel sector boundary (excluding recovered waste heat/gases) (column 4) • All energy not identified as deriving from renewable sources should be entered, e.g. coal, oil, natural gas, etc. • Note that consumption of waste heat/gases recovered from processes using fuel feedstocks should not be included here. This energy is considered non-renewable but is captured separately in column 5.

	MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside steel sector boundary (column 5) • Companies that recover and consume waste heat/gases generated from the consumption of fuel feedstocks to produce energy should report the consumption of the recovered waste heat/gases in this column. • Note that this only applies for processes within the steel sector boundary where the waste heat/gas is derived from fuel feedstocks – consumption of waste heat/gas that is derived from fuels should not be included, as this would be double counting.
Explanation of terms	• Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004). • Heating Value: Lower heating value (LHV) and Higher heating value (HHV), also known as net calorific value (NCV) and gross calorific value (GCV) respectively, are different measures of heat energy released from fuel combustion. Figures measured in HHV are larger because HHV includes the latent heat of water vaporization from combustion, whereas LHV does not. The difference between LHV and HHV is related to the fuel's hydrogen content.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	ST

(7.30.6) Select the applications of your organization's consumption of fuel.

Question details	
Question dependencies	This question only appears if you select "Consumption of fuel (excluding feedstocks)" in response to 7.30. Each option that you select in this table will appear as an additional column in 7.30.7.
Change from last year	Modified guidance
Rationale	Scope 1 greenhouse gas emissions are directly associated with the consumption of fuel. This question provides data users with more transparency regarding the application of an organization's fuel consumption for the generation of secondary energy carriers.
Response options	Please complete the following table:

1	2
Fuel application	Indicate whether your organization undertakes this fuel application

Consumption of fuel for the generation of electricity	Select from: • Yes • No
Consumption of fuel for the generation of heat	
Consumption of fuel for the generation of steam	
Consumption of fuel for the generation of cooling	
Consumption of fuel for co-generation or tri-generation	

[Fixed row]

Requested content	General • Information you provide should be for the reporting year only (as defined by your answer to 1.4). • This question drives the columns presented in question 7.30.7. • Companies who consume fuel for any applications not listed such as transportation, industrial process plant and equipment etc. should select 'Consumption of fuel for the generation of heat'. • It does not matter whether your organization consumes or exports the electricity, steam, or cooling generated; if your organization generates any electricity, steam, or cooling from fuel combustion (thermal generation), then you should select 'Yes' in the relevant field. • Co-generation is also known as combined heat and power (CHP). Tri-generation is also known as combined cooling, heat and power (CCHP). Combined cooling and power (CCP) is another system in which energy carriers are generated together. If your organization generates from any single configuration of plant in which electricity, steam, heat, or cooling are generated as simultaneous useful outputs, then you should select 'Yes' for the consumption of fuel for co-generation or tri-generation.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All except FS

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

Question details	
Question dependencies	This question only appears if you select "Consumption of fuel (excluding feedstock)" in 7.30.
Change from last year	Modified guidance
Rationale	Scope 1 greenhouse gas emissions are directly associated with the consumption of fuel for energy purposes. This question provides data users with more transparency regarding the type of fuel an organization has consumed. Total consumption of fuels and their consumption for different energy applications also provides insight on the way in which fuels are used by the organization, which can allow for a fairer and more

	consistent understanding of corporate energy and emissions from data users.
Response options	Please complete the following table:

0	1	2	3	4	5	6	7	8
Fuels (excluding feedstocks)	Heating value	Total fuel MWh consumed by the organization	MWh fuel consumed for self-generation of electricity	MWh fuel consumed for self-generation of heat	MWh fuel consumed for self-generation of steam	MWh fuel consumed for self-generation of cooling	MWh fuel consumed for self-cogeneration or self-trigeneration	Comment
Sustainable biomass	Select from: • LHV • HHV • Unable to confirm heating value	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Text field [maximum 2,400 characters]
Other biomass								
Other renewable fuels (e.g. renewable hydrogen)								
Coal								
Oil								
Gas								
Other non-renewable fuels (e.g. non-renewable hydrogen)								

Total fuel								

[Fixed row]

Requested content	General • For each fuel application selected in 7.30.6 a column appears in the table in addition to the "MWh fuel consumed for self-generation of heat" and "Total MWh consumed by the organization" columns. • If no fuel application or only "Consumption of fuel for the generation of heat" is selected in 7.30.6 then only the "Total MWh consumed by the organization" column will appear. • You should provide information for all fuel (excluding feedstocks) consumed by your organization in the reporting year (as defined by your answer to 1.4). Therefore, column "Total fuel MWh consumed by the organization" in the "Total fuel" row should equal the total consumption of fuel (excluding feedstock) in MWh (from renewable and non-renewable sources) as reported in 7.30.1. • Blended fuels deriving from both renewable and non-renewable sources should be split by the proportion contained from each source and reported in the corresponding row of the table. E.g. For petrol and diesel that contains a biofuel blend, the energy consumed from the fossil fuel-derived portion should be reported in row "Oil". • Report any energy consumption from the biofuel content of the blended fuel considered sustainable in the "Sustainable biomass" row and provide the criteria used to classify the biomass as sustainable (e.g. details of certification) in the "Comment" column. • Self-generation means generation from inside the organizational boundary. This includes all generation plant owned or controlled by the organization. Do not provide information for fuel consumed by another organization for the generation of electricity, steam, heat, and cooling that your organization has purchased or acquired. • This table is for gross fuel consumption data only. You should not provide net consumption nor deduct for energy produced and exported from the organizational boundary. Because feedstock fuels are excluded from this question, this approach should not lead to double counting. • All fuel consumed inside the organizational boundary should be included, regardless of whether the fuel was purchased or produced by the organization. Fuel consumed as a feedstock (used for the production of another fuel) should not be included. The produced fuel should still be included if it is consumed within the organizational boundary. • The consumption of fuel for any applications not listed (transportation, industrial process plant and equipment etc.) should be reported in in column 4 "MWh fuel consumed for self-generation of heat". • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh" and a glossary of definitions on some fuels is provided in Technical Notes: "Fuel Definitions". Fuels (excluding feedstocks) (column 0) • Please refer to the CDP Technical note on Biofuels for guidance on biomass/biofuel sustainability. If you report information in the "Sustainable biomass" row, provide the criteria used to classify the biomass as sustainable (e.g. certification) in column 9 "Comment". • "Other renewable fuels" and "Other non-renewable fuels" are aggregations of any other renewable and non-renewable fuels you consume that do not fit within the categories of fuels listed.

	• Hydrogen fuel should be reported based on its origins. As blue hydrogen is based on non-renewable sources, it should be reported in the row "Other non-renewable fuels (e.g. non-renewable hydrogen)". • If you have not consumed any fuels within a category in the reporting year, select a heating value and then enter 0 in the subsequent columns. Heating value (column 1) • Fuel should be reported consistently in either LHV or HHV. • Your choice of HHV or LHV should be consistent with your choice in 7.30.1. MWh fuel consumed for self-generation of electricity (column 3) • Fuel consumed for electricity generated in cogeneration or trigeneration plants should be reported in column "MWh fuel consumed for self- cogeneration or self-trigeneration". • Make sure that you do not enter data for the actual electricity generated from these fuels. This table is for the consumption of the fuels themselves and aims to capture the energy content of the initial fuel used, not the energy content of the electricity generated from these fuels. MWh fuel consumed for self-generation of heat (column 4) • This column will be presented if you selected "Yes" for any fuel application in 7.30.6 except if you selected only "Consumption of fuel for the generation of heat". This is because combustion reactions are exothermic and thus generate heat in addition to any secondary energy carrier generated (electricity, steam, and/or cooling). • This column is not presented if only "Consumption of fuel for the generation of heat" is selected in 7.30.6, because in this case the "MWh fuel consumed for self-generation of heat" will be equal to the "Total fuel MWh consumed by the organization". • Fuel consumed for heat is fuel that is combusted for the direct use of the heat/thermal energy its combustion releases. This heat is used in applications such as direct heating for industrial process plant and equipment, engines, turbines, furnaces, heaters, stoves, incinerators, kilns, dryers, thermal oxidizers, space heating, open burning, flaring, or any other combustion that is not for the generation of secondary energy carriers (electricity, steam, and/or cooling). • Report the fuel energy (i.e. total heat of fuel combustion), not the heat delivered for the application. This question asks for the MWh fuel consumed, not the useful energy delivered for the application. MWh fuel consumed for self-generation of steam (column 5) • Do not include steam generated in co- or tri-generation plants. This should be reported in in column "MWh fuel consumed for self- cogeneration or self-trigeneration". MWh fuel consumed for self-generation of cooling (column 6) • Do not include cooling generated in co- or tri-generation plants. This should be reported in in column "MWh fuel consumed for self- cogeneration or self-trigeneration". Comment (column 8) (optional) • You may comment on the specific fuels consumed in each row, or provide additional information on the methods or assumptions used to determine the breakdown of fuel consumed.

	• If you report information in the "Sustainable biomass" row, provide the criteria used to classify the biomass as sustainable (e.g. certification).

Explanation of terms	• Heating Value: Lower heating value (LHV) and Higher heating value (HHV), also known as net calorific value (NCV) and gross calorific value (GCV) respectively, are different measures of heat energy released from fuel combustion. Figures measured in HHV are larger because HHV includes the latent heat of water vaporization from combustion, whereas LHV does not. The difference between LHV and HHV is related to the fuel's hydrogen content.
	• Biomass: any organic matter, i.e. biological material, available on a renewable basis. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. Biomass fuels should be sustainably sourced and certified where possible, and include:
	  ○ Solid biofuels - solid fuels derived from biomass. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources.
	  ○ Biogas - a mixture of methane (CH4) and carbon dioxide (CO2) used as fuel and produced by bacterial degradation of organic matter or through gasification of biomass.
	  ○ Liquid biofuels - liquid fuels derived from biomass such as ethanol and biodiesel.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All except FS

(7.30.8) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel for cement production activities.

Question details	
Question dependencies	This question only appears if you select "Consumption of fuel" in 7.30 and a column appears in the table for each fuel application selected in 7.30.6. The "Total MWh fuel consumed for cement production activities", "MWh fuel consumed at the kiln" and "MWh fuel consumed for the generation of heat that is not used in the kiln" columns will always appear.
Change from last year	Modified guidance
Rationale	Question 7.30.7 has been modified and represented here for the cement sector. This is to enable consistency of reporting across organizations with varying coverage over activities that may be separate from the cement sector or independent of the production activities defining the cement sector. Cement is also a highly energy intensive sector of industry, so it is important to represent the sector separately from outside activities.
Response options	Please complete the following table.

1	2	3	4	5	6	7	8
Fuels (excluding feedstocks)	Heating value	Total MWh fuel consumed for cement production activities	MWh fuel consumed at the kiln	MWh fuel consumed for the generation of heat that is not used in the kiln	MWh fuel consumed for the self-generation of electricity	MWh fuel consumed for self-cogeneration or self-trigeneration	Comment
Sustainable biomass	Select from: • LHV • HHV • Unable to confirm heating value	Numerical field [enter a number from 0-9,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-9,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-9,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-9,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-9,999,999,999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]
Other biomass							
Other renewable fuels (e.g. renewable hydrogen)							
Coal							
Oil							
Gas							
Other non-renewable fuels (e.g. non-renewable hydrogen)							
Total fuel							

[Fixed row]

Requested content	General • Columns "MWh fuel consumed for the self-generation of electricity" and "MWh fuel consumed for self-cogeneration or self-trigeneration" appear based on fuel application selections in 7.30.6. All other columns always appear. • This question is based on question 7.30.7 but is sector specific. Energy consumed outside the cement sector should not be reported here. • The boundary surrounding your organization in the cement sector shall hereby be referred to as the organizational/sector boundary. The sector boundary for energy consumption should align with the sector boundary for emissions, which is described in the guidance to question 7.19. Note that 'cement production activities' includes a wide coverage of activities including all relevant generation plant and ancillary activities, as well as the production processes themselves. • You should provide information for all fuel (excluding feedstocks) consumed by your organization in the reporting year (as defined by your answer to 1.4). Therefore, column "Total fuel MWh consumed by the organization" in the "Total fuel" row should equal the total consumption of fuel (excluding feedstock) in MWh (from renewable and non-renewable sources) as reported in 7.30.2.

	• This table is for gross fuel consumption data only. You should not provide net consumption nor deduct for energy produced or exported from the organizational/sector boundary. Because feedstock fuels are excluded from this question, this approach should not lead to double counting. • All fuel consumed for energy purposes inside the organizational/sector boundary should be included, regardless of whether the fuel was purchased or produced by the organization. Fuel consumed as a feedstock (used for the production of another fuel) should not be included. The produced fuel should still be included if it is consumed within the organizational boundary. • Self-generation means generation from inside the organizational/sector boundary. This includes all generation plant owned or controlled by the organization in the cement sector. Do not provide information for fuel consumed for the generation of purchased or acquired electricity, steam, heat, and/or cooling. If you do not have exact consumption data, you may alternatively estimate your company's consumption by reviewing fuel and energy purchasing orders. • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh" and a glossary of definitions on some fuels is provided in Technical Noes: "Fuel Definitions". Fuels (excluding feedstocks) (column 1) • Please refer to the CDP Technical note on Biofuels for guidance on biomass/biofuel sustainability. If you report information in the "Sustainable biomass" row, provide the criteria used to classify the biomass as sustainable (e.g. certification) in the "Comment" column (column 8). • "Other renewable fuels" and "Other non-renewable fuels" are aggregations of any other renewable and non-renewable fuels you consume that do not fit within the categories of fuels listed. • If you have not consumed any fuels within a category in the reporting year, select a heating value and then enter 0 in the subsequent columns. Heating value (column 2) • Fuel should be reported consistently in either LHV or HHV. • Your choice of HHV or LHV should be consistent with your choice in question 7.30.2. MWh fuel consumed for the self-generation of electricity (column 6) • Fuel consumed for electricity generated in cogeneration or trigeneration plants should be reported in column "MWh fuel consumed for self- cogeneration or self-trigeneration". • Make sure that you do not enter data for the electricity generated from these fuels. This table is for the consumption of the fuels themselves and aims to capture the energy content of the fuel used, not the energy content of the electricity generated from these fuels. Comment (column 8) (optional) • You may comment on the specific fuels consumed in each row, or provide additional information on the methods or assumptions used to determine the breakdown of fuel consumed.

	• If you report information in the "Sustainable biomass" row, provide the criteria used to classify the biomass as sustainable (e.g. certification).

Explanation of terms	• Heating Value: Lower heating value (LHV) and Higher heating value (HHV), also known as net calorific value (NCV) and gross calorific value (GCV) respectively, are different measures of heat energy released from fuel combustion. Figures measured in HHV are larger because HHV includes the latent heat of water vaporization from combustion, whereas LHV does not. The difference between LHV and HHV is related to the fuel's hydrogen content.
	• Biomass: any organic matter, i.e. biological material, available on a renewable basis. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. Biomass fuels should be sustainably sourced and certified where possible, and include:
	  ○ Solid biofuels - solid fuels derived from biomass. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources.
	  ○ Biogas - a mixture of methane (CH4) and carbon dioxide (CO2) used as fuel and produced by bacterial degradation of organic matter or through gasification of biomass.
	  ○ Liquid biofuels - liquid fuels derived from biomass such as ethanol and biodiesel.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CE

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

Content info

Question details	
Question dependencies	• This question only appears if you select "Generation of electricity, heat, steam, or cooling" in response to 7.30.
Change from last year	Modified guidance
Rationale	Many organizations generate their own electricity, steam, heat, and/or cooling. Bringing the generation of these secondary energy carriers inside the organizational boundary has the effect of reducing an organization's Scope 2 emissions while increasing Scope 1 emissions. Because the scale of self-generation can be highly variable, this can create additional uncertainty for data users when comparing Scope 1 and 2 emissions across company samples or portfolios. CDP aims to alleviate this distorting factor by bringing transparency on the extent of self-generation by organizations.

Response options	Please complete the following table:

1	2	3	4	5
Energy Carrier	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	Numerical field [enter a number from 0 to 999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 999,999,999 using up to 2 decimal places and no commas]
Heat				
Steam				
Cooling				

[Fixed row]

Requested content	General • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh". • Nuclear power generation is not to be included for this question, as nuclear power is covered in more detail in questions for electric utilities. • You should only account for heat generated in transferable mediums, i.e. the forms of heat that may also be purchased or acquired from third parties (as listed in question 7.30.1). • This is because the proportion of fuel combustion heat made available for use in applications after losses (e.g. direct heating for industrial process plant and equipment) may be difficult to measure or would require detailed process monitoring equipment readings. Total Gross generation (MWh) (column 2) • Gross generation should be reported, where 'Gross' covers the total output from all generating installations or facilities without deducting for electricity, steam, heat or cooling used by the generating plant or facility for the purpose of generation. This includes both the energy you produced and did not consume, as well as the amount you did consume. Generation that is consumed by the organization (MWh) (column 3) • This column is a subset of column 2; the amount entered cannot be higher than the amount entered in column 2. If the entered amount is equal to the amount in column 2, then your organization consumed (or wasted) all of the electricity, steam, heat, or cooling that your organization generated. Generation from renewable sources that is consumed by the organization (MWh) (column 5) • This column is a subset of column 4; the amount entered cannot be higher than the amount entered in column 4. If the entered amount is equal to the amount in column 4, then your

	organization consumed all of the electricity, steam, heat, or cooling that your organization generated from renewable sources. • Sources of self-generated renewable electricity might be on-site or off-site, on the grid, or entirely off-grid. Organizations must retain energy attributes to claim use of renewable electricity, potentially in the form of energy attribute certificates (EACs). If EACs are issued, organizations must retain them to claim the use of renewable electricity.
Explanation of terms	• Gross generation: covers the total output from all generating installations or facilities without deducting for amount of generated electricity, steam, heat or cooling used by those installations or facilities for the purpose of generation. Deducting this self-consumption of output gives the net generation. To avoid double-counting, consumption of one energy carrier (i.e., electricity, heat, steam, or cooling) to produce another (i.e., electricity, heat, steam, or cooling) within the same installation should not be included. For example, the generation of steam which is consumed in a steam turbine for the generation of electricity should not be included. • Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All except FS and EU

(7.30.10) Provide details on the electricity and heat your organization has generated and consumed for cement production activities.

Question details	
Question dependencies	This question only appears if you select "Generation of electricity, heat, steam, or cooling" in response to 7.30.
Change from last year	Modified guidance
Rationale	Question 7.30.9 has been modified and represented here for the cement sector. This enables consistency of reporting across organizations with varying coverage over activities that may be separate from the cement sector or independent of the production activities defining the cement sector.
Response options	Please complete the following table:

Energy carrier	Total gross generation inside the cement sector boundary	Generation that is consumed inside the cement sector boundary

Electricity	Numerical field [enter a number from 0-999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999 using a maximum of 2 decimal places]
Heat		
Steam		

[Fixed row]

Requested content	General • This question is based on question 7.30.9 but is sector specific. Energy carriers generated from outside the cement sector should not be reported here. • The boundary surrounding your organization in the cement sector shall hereby be referred to as the organizational/sector boundary. The sector boundary for energy consumption should align with the sector boundary for emissions, which is described in the guidance to question 7.19. • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh". • Nuclear power generation should not be included for this question, as nuclear power is covered in more detail in questions for electric utilities. • You should only account for heat generated in transferable mediums, i.e. the forms of heat that may also be purchased or acquired from third parties (as listed in question 7.30.1). • This is because the proportion of fuel combustion heat made available for use in applications after losses (e.g. direct heating for industrial process plant and equipment) may be difficult to measure or would require detailed process monitoring equipment readings. Total Gross generation inside cement sector boundary (column 2) • Gross generation should be reported, where 'Gross' covers the total output from all generating installations or facilities without deducting for electricity, steam, heat or cooling used by the generating plant or facility for the purpose of generation. This includes both the energy you produced and did not consume, as well as the amount you did consume. Generation that is consumed by the organization inside cement sector boundary (column 3) • This column is a subset of column 2; the amount entered cannot be higher than the amount entered in column 2. If the entered amount is equal to the amount in column 2, then your organization consumed in the cement sector all of the electricity, steam, and/or heat that your organization generated in the cement sector.
Explanation of terms	• Gross generation: covers the total output from all generating installations or facilities without deducting for amount of generated electricity, steam, heat or cooling used by those installations or facilities for the purpose of generation. Deducting this self-consumption of output gives the net generation. To avoid double-counting, consumption of one energy carrier (i.e. electricity, heat, steam, or cooling) to produce another (i.e. electricity, heat, steam, or cooling) within the same installation should not

	be included. For example, the generation of steam which is consumed in a steam turbine for the generation of electricity should not be included.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CE

(7.30.11) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.

Question details	
Question dependencies	This question only appears if you select "Yes" to "Generation of electricity, heat, steam, or cooling" in response to 7.30.
Change from last year	Modified guidance
Rationale	Question 7.30.9 has been modified and represented here for the chemicals sector. This enables consistency of reporting across organizations with varying coverage over activities that may be separate from the chemicals sector or independent of the production activities defining the chemicals sector.
Response options	Please complete the following table:

1	2	3	4	5
Energy Carrier	Total gross generation inside chemicals sector boundary (MWh)	Generation that is consumed inside chemicals sector boundary (MWh)	Generation from renewable sources inside chemical sector boundary (MWh)	Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)
Electricity	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]
Heat				
Steam				
Cooling				

[Fixed row]

Requested content	General

- This question is based on question 7.30.9 but is sector specific. Energy carriers generated from outside the chemicals sector boundary should not be reported here.
- The boundary surrounding your organization in the chemicals sector shall hereby be referred to as the organizational/sector boundary. The sector boundary for energy consumption should align with the sector boundary for emissions, which is described in the guidance to question 7.19.
- Figures you provide should be for the reporting year only (as defined by your answer to 1.4).
- Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh."
- Nuclear power generation should not be included for this question, as nuclear power is covered in more detail in questions for electric utilities.
- You should only account for heat generated in transferable mediums, i.e. the forms of heat that may also be purchased or acquired from third parties (as listed in question 7.30.1).
- This is because the proportion of fuel combustion heat made available for use in applications after losses (e.g. direct heating for industrial process plant and equipment) may be difficult to measure or would require detailed process monitoring equipment readings.

- Companies that recover waste heat/gases generated from the consumption of fuel feedstocks in a primary industrial process and utilize the waste heat/gases to produce energy in a secondary process should report the generation of electricity, heat, steam and/or cooling from the recovered waste heat/gases in column 5 "Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)". An example of such a process is the generation of electricity from recovered excess heat from the exothermic reaction in the process of sulfuric acid production.

Total gross generation inside chemicals sector boundary (MWh) (column 2)

- Gross generation should be reported, where 'Gross' covers the total output from all generating installations of facilities inside the chemical sector boundary without deducting for electricity, steam, heat or cooling used by the generation plant or facility for the purpose of generation. This includes both the energy you produced and did not consume, as well as the amount you did consume.

Generation that is consumed inside chemicals sector boundary (MWh) (column 3)

- This column is a subset of column 2; the amount entered cannot be higher than the amount entered in column 2. If the entered amount is equal to the amount in column 2, then your organization consumed in the chemicals sector all of the electricity, steam, and/or heat that your organization generated in the chemicals sector.

Generation from renewable sources inside chemical sector boundary (MWh) (column 4)

- Note that generation from waste heat/gases recovered from processes using fuel feedstocks should not be included here. Although low carbon, this source of energy is considered non-renewable and will be captured in column 5.

Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh) (column 5)

	• Companies that recover waste heat/gases generated from the consumption of fuel feedstocks in a primary industrial process and utilize the waste heat/gases to produce energy in a secondary process should report the generation of electricity, heat, steam and/or cooling from the recovered waste heat/gases in this column. • Note that this only applies for processes within the chemical sector boundary where the waste heat/gas is derived from fuel feedstocks – generation of energy from waste heat/gas that is derived from fuels should not be included in this column.
Explanation of terms	Gross generation: covers the total output from all generating installations or facilities without deducting for amount of generated electricity, steam, heat or cooling used by those installations or facilities for the purpose of generation. Deducting this self-consumption of output gives the net generation. To avoid double-counting, consumption of one energy carrier (i.e. electricity, heat, steam, or cooling) to produce another (i.e. electricity, heat, steam, or cooling) within the same installation should not be included. For example, the generation of steam which is consumed in a steam turbine for the generation of electricity should not be included. Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CH

(7.30.12) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed for metals and mining production activities.

Question details	
Question dependencies	This question only appears if you select "Generation of electricity, heat, steam or cooling" in response to 7.30.
Change from last year	Modified guidance
Rationale	Question 7.30.9 has been modified and represented here for the metals and mining sector. This enables consistency of reporting across organizations with varying coverage over activities that may be separate from the metals and mining sector or independent of the production activities defining the metals and mining sector.
Response options	Please complete the following table:

Energy Carrier	Total gross generation inside metals and mining sector boundary	Generation that is consumed inside metals and mining sector boundary
Electricity	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]
Heat		
Steam		
Cooling		

[Fixed row]

Requested content	General • This question is based on question 7.30.9 but is sector specific. Energy carriers generated from outside the metals and mining sector should not be reported here. • The boundary surrounding your organization in the metals and mining sector shall hereby be referred to as the organizational/sector boundary. The sector boundary for energy consumption should align with the sector boundary for emissions, which is described in the guidance to question 7.19. • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • If you do not have any activity then you should enter zero (0) in the relevant field. • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh". • Nuclear power generation should not be included for this question, as nuclear power is covered in more detail in questions for electric utilities. • You should only account for heat generated in transferable mediums, i.e. the forms of heat that may also be purchased or acquired from third parties (as listed in question 7.30.1). • This is because the proportion of fuel combustion heat made available for use in applications after losses (e.g. direct heating for industrial process plant and equipment) may be difficult to measure or would require detailed process monitoring equipment readings. Total Gross generation inside metals and mining sector boundary (column 2) • Gross generation should be reported, where 'Gross' covers the total output from all generating installations of facilities inside the chemical sector boundary without deducting for electricity, steam, heat or cooling used by the generation plant or facility for the purpose of generation. This includes both the energy you produced and did not consume, as well as the amount you did consume. Generation that is consumed by the organization inside metals and mining sector boundary (column 3) • This column is a subset of column 2; the amount entered cannot be higher than the amount entered in column 2. If the entered amount is equal to the amount in column 2, then your organization consumed in the metals and mining sector all of the electricity, steam, and/or heat that your organization generated in the metals and mining sector.

Explanation of terms	• Gross generation: covers the total output from all generating installations or facilities without deducting for amount of generated electricity, steam, heat or cooling used by those installations or facilities for the purpose of generation. Deducting this self-consumption of output gives the net generation. To avoid double-counting, consumption of one energy carrier (i.e. electricity, heat, steam, or cooling) to produce another (i.e. electricity, heat, steam, or cooling) within the same installation should not be included. For example, the generation of steam which is consumed in a steam turbine for the generation of electricity should not be included.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	MM

(7.30.13) Provide details on the electricity, heat, and steam your organization has generated and consumed for steel production activities.

Question details	
Question dependencies	This question only appears if you select "Yes" to "Generation of electricity, heat, steam, or cooling" in response to 7.30.
Change from last year	Modified guidance
Rationale	Question 7.30.9 has been modified and represented here for the steel sector. This enables consistency of reporting across organizations with varying coverage over activities that may be separate from the steel sector or independent of the production activities defining the steel sector.
Response options	Please complete the following table:

1	2	3	4	5
Energy Carrier	Total gross generation inside steel sector boundary (MWh)	Generation that is consumed by the organization inside steel sector boundary (MWh)	Generation from renewable sources inside steel sector boundary (MWh)	Generation from waste heat/gases recovered from processes using fuel feedstocks inside steel sector boundary (MWh)
Electricity	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]	Numerical field [enter a number from 0 to 9,999,999,999 using up to 2 decimal places and no commas]
Heat				
Steam				

[Fixed row]

Requested content	General • This question is based on question 7.30.9 but is sector specific. Energy carriers generated from outside the steel sector boundary should not be reported here. • The boundary surrounding your organization in the steel sector shall hereby be referred to as the organizational/sector boundary. The sector boundary for energy consumption should align with the sector boundary for emissions, which is described in the guidance to question 7.19. • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh." • Nuclear power generation should not be included for this question, as nuclear power is covered in more detail in questions for electric utilities. • You should only account for heat generated in transferable mediums, i.e. the forms of heat that may also be purchased or acquired from third parties (as listed in question 7.30.1). • This is because the proportion of fuel combustion heat made available for use in applications after losses (e.g. direct heating for industrial process plant and equipment) may be difficult to measure or would require detailed process monitoring equipment readings. Companies that recover waste heat/gases generated from the consumption of fuel feedstocks in a primary industrial process and utilize the waste heat/gases to produce energy in a secondary process should report the generation of electricity, heat, steam and/or cooling from the recovered waste heat/gases in column 5 "Generation from waste heat/gases recovered from processes using fuel feedstocks inside steel sector boundary (MWh)". An example of such a process is the generation of electricity from Blast Furnace Gas (BFG) recovered in the process of iron production. Total Gross generation inside steel sector boundary (MWh) (column 2) • Gross generation should be reported, where 'Gross' covers the total output from all generating installations of facilities inside the steel sector boundary without deducting for electricity, steam, heat or cooling used by the generation plant or facility for the purpose of generation. This includes both the energy you produced and did not consume, as well as the amount you did consume. Generation that is consumed by the organization inside steel sector boundary (MWh) (column 3) • This column is a subset of column 2; the amount entered cannot be higher than the amount entered in column 2. If the entered amount is equal to the amount in column 2, then your organization consumed in the steel sector all of the electricity, heat, and/or steam that your organization generated in the steel sector. Generation from renewable sources inside steel sector boundary (MWh) (column 4)

	• Note that generation from waste heat/gases recovered from processes using fuel feedstocks should not be included here. Although low carbon, this source of energy is considered non-renewable and will be captured in column 5. Generation from waste heat/gases recovered from processes using fuel feedstocks inside steel sector boundary (MWh) (column 5) • Companies that recover waste heat/gases generated from the consumption of fuel feedstocks in a primary industrial process and utilize the waste heat/gases to produce energy in a secondary process should report the generation of electricity, heat, steam and/or cooling from the recovered waste heat/gases in this column. • Note that this only applies for processes within the steel sector boundary where the waste heat/gas is derived from fuel feedstocks – generation of energy from waste heat/gas that is derived from fuels should not be included in this column.
Explanation of terms	Gross generation: covers the total output from all generating installations or facilities without deducting for amount of generated electricity, heat, or steam used by those installations or facilities for the purpose of generation. Deducting this self-consumption of output gives the net generation. To avoid double-counting, consumption of one energy carrier (i.e. electricity, heat, steam, or cooling) to produce another (i.e. electricity, heat, steam, or cooling) within the same installation should not be included. For example, the generation of steam which is consumed in a steam turbine for the generation of electricity should not be included. Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	ST

(7.30.14) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in 7.7.

Question details	
Question dependencies	This question only appears if you select "We are reporting a Scope 2, market-based figure" in response to column "Scope 2, market-based" of 7.3, and select "Yes" in 7.30 in any of the "Consumption of purchased or acquired [electricity/heat/steam/cooling]" rows. This question is not presented to RE100 members.
Change from last year	Modified guidance
Rationale	This question provides data users with more transparency regarding organizations' active sourcing of low-carbon energy.
Ambition	Companies choose impactful procurement options, that lead to new low-carbon or renewable energy capacity

	being brought into the grid, such as power purchase agreements.
Response options	Please complete the following table.

1	2	3	4	5	6	7
Country/area	Sourcing method	Energy carrier	Low-carbon technology type	Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)	Tracking instrument used	Country/area of origin (generation) of the low-carbon energy or energy attribute
Select from: [Country/area drop-down list]	Select from: • None (no active purchases of low-carbon electricity, heat, steam or cooling) • Purchase from an on-site installation owned by a third party (on-site PPA) • Direct line to an off-site generator owned by a third party with no grid transfers (direct line PPA) • Physical power purchase agreement (physical PPA) with a grid-connected generator • Financial (virtual) power purchase agreement (VPPA) • Project-specific contract with an electricity supplier	Select from: • Electricity • Heat • Steam • Cooling • Heat, steam and cooling combined	Select from: • Solar • Wind • Large hydropower (>25 MW) • Small hydropower (<25 MW) • Hydropower (capacity unknown) • Nuclear • Sustainable biomass • Other biomass • Renewable hydrogen fuel cell • Marine • Geothermal • Fossil-fuel plants fitted with CCS • Low-carbon energy mix, please specify • Renewable energy mix, please specify	Numerical field [enter a number from 0 to 999,999,999,999 using up to 2 decimal places and no commas]	Select from: • Contract • GEC • GO • Indian REC • I-REC • J-Credit (Renewable) • Korean REC • Australian LGC • NFC – Renewable • NZECS • REGO • TIGR • T-REC • US-REC • zaREC • Other, please specify • No instrument used	Select from: [Country/area drop-down list]

	• Retail supply contract with an electricity supplier (retail green electricity) • Unbundled procurement of energy attribute certificates (EACs) • Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates • Default delivered electricity from the grid (e.g. standard product offering by an energy supplier) from a grid that is 95% or more low-carbon and where there is no mechanism for specifically allocating low-carbon electricity • Heat/steam/cooling supply agreement • Other, please specify					

8	9	10
Are you able to report the commissioning or re-powering year of the energy generation facility?	Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)	Comment
Select from: • Yes • No	Numerical field [enter a number between 1900-2025]	Text field [maximum 2,500 characters]

[Add row]

Requested content	General • Note that all purchases of low-carbon energy (as defined in the "Explanation of terms") should be reported in this question, even if their associated emission factor is marginally above zero. Whereas most low-carbon technologies do not directly emit GHGs and are accounted for at a zero-emission factor, some low-carbon technologies such as biomass and geothermal may have an emission factor that is low but above zero. • To claim the use of renewable electricity, companies must source renewable electricity from within the boundary of the market in which they are consuming the electricity. For more information on the market boundary criteria please refer to the CDP Technical Note: Accounting of Scope 2 emissions. • Different sourcing methods in the same country/area should be reported in separate rows. E.g. if you have a green electricity contract in India for one of your offices and purchased unbundled Indian RECs to cover the electricity consumption of another office, you should add a separate row for each sourcing method and select "India" in column 1 "Country/area" for both. Country/area (column 1) • For companies selecting "None (no active purchases of low-carbon electricity, heat, steam or cooling)", this indicates that in the country/area specified, you have not consumed any electricity, heat, steam, and/or cooling accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in 7.7. • For companies selecting "Default delivered electricity (e.g. standard product offering by an energy supplier) from a grid that is 95% or more low-carbon and where there is no mechanism for specifically allocating low-carbon electricity", note that the country/area of consumption (this column) must be the same as the country/area of origin (column 7). Sourcing method (column 2) • Select the option that best describes the sourcing method that you use for low-carbon electricity, heat, steam and cooling: - None (no active purchases of low-carbon electricity, heat, steam or cooling). Select this option if your company doesn't actively purchase low-carbon electricity, heat, steam or cooling i.e. you do not have any contractual instruments (e.g. power purchase agreement, heat/steam supply agreement, energy attribute certificates, etc.) to claim low-carbon energy consumption. Note that companies with operations in a country/area with a grid that is more than 95% low-carbon and where there is no mechanism for specifically allocating low-carbon energy should refer to the option "Default delivered electricity (e.g. standard product offering by an energy supplier) from a grid that is 95% or more low-carbon and where there is no mechanism for specifically allocating low-carbon electricity" below. - Purchase from an on-site installation owned by a third party (on-site PPA). This option refers to low-carbon electricity that is purchased by the company from on-site, behind the meter facilities owned and operated by a third-party supplier. The low-carbon electricity consumption claimed by a company using this option must be substantiated by an electricity supply contract with the supplier that conveys the project's energy attributes. - Direct line to an off-site generator owned by a third party with no grid transfers (direct line PPA). This option includes low-carbon electricity produced from off-site installations owned and operated by a third party and delivered to the company via a direct line, with no grid transfers. The low-carbon electricity consumption claimed by a company using this option must be backed by an electricity supply contract with the project owners and operators which conveys the project's energy attributes.

	- Physical power purchase agreement (physical PPA) with a grid-connected generator. A contract signed directly between the company consuming the electricity and a power generator. The contract ensures the purchase of electricity from a specific low-carbon electricity generator that is delivered through the local grid. The associated energy attributes must be conveyed within the contract. - Financial (virtual) power purchase agreement (VPPA). A purely financial transaction between the company and a power generator, in which the company assumes market risk related to the sale of the generator's electricity and receives energy attributes. The power generator sells the electricity into the local wholesale power market. The generator and the company then settle the difference between the variable wholesale market price and the contract strike price, and the company receives the certificates that are generated from the project. A VPPA is not an electricity supply contract (it only delivers energy attributes), meaning electricity is procured in a separate contract. - Project-specific contract with an electricity supplier. An arrangement whereby an electricity supplier procures from specified projects on behalf of the company. Often, the supplier holds a power purchase agreement. The contract may be advertised as a 'green tariff' and has complete transparency regarding the energy attributes in the supply (meaning the company always knows exactly which specific projects they are purchasing from through their electricity supplier), and typically uses a longer contract length. - Retail supply contract with an electricity supplier (retail green electricity). An 'off-the-shelf' arrangement with an electricity supplier for the supply of low-carbon electricity. The company usually pays a premium for the low-carbon electricity. This contract may be advertised as a 'green electricity product' and has less transparency than a project-specific contract regarding the energy attributes in the supply, and typically uses a shorter contract length. The supplier may vary the projects from which energy attributes are sourced throughout the contract. - Unbundled procurement of energy attribute certificates (EACs). Unbundled energy attribute certificates (e.g. RECs, GOs, I-RECs etc.) are purchased through an energy supplier or other intermediaries. They are purchased separately from the electricity to match a company's purchased electricity consumption and exist only as the attributes of that electricity. - Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates. This option refers to the share of low-carbon electricity in the grid mix that is delivered by the electricity-supplier as a default supply to the company, and where an equivalent amount of energy attribute certificates are retired by the utility/supplier on behalf of the purchasing company. This option includes low-carbon electricity supplied under a supplier mandate – a regulation requiring electricity suppliers to source a percentage of their supply from specified energy sources, e.g. Renewable Portfolio Standards in the US or Large-Scale Generation Certificates (LGCs) retired by suppliers in Australia under the Renewable Energy Target (RET). Companies should verify how their utility/supplier is complying with the mandate in column 10 "Comment". - Default delivered electricity (e.g. standard product offering by an energy supplier) from a grid that is 95% or more low-carbon and where there is no mechanism for specifically allocating low-carbon electricity. This option refers to the share of low-carbon electricity in the grid mix that is delivered by the utility/supplier as a default supply to the customer, where the default grid mix of low-carbon electricity (as per CDP's definition of low-carbon in the "Explanation of terms") is over 95% and where there is no mechanism for actively sourcing low-carbon electricity from the grid (i.e. energy attribute certificates

	or another attribute tracking system). This option only applies when the entire national grid is over 95% low-carbon. Some current examples include Paraguay, Uruguay, and Ethiopia, but the list of countries/areas is subject to change as the market and the grids evolve. Companies selecting this option should provide supporting information in column 10 "Comment". - Heat/steam/cooling supply agreement. A contract signed between the company consuming the heat/steam/cooling and a supplier who provides low-carbon heat/steam/cooling. - Other, please specify. Other sourcing methods not mentioned above that have been used to account for electricity, heat, steam or cooling at a zero or near-zero emission factor may be reported if the contractual instruments comply with the Scope 2 Quality Criteria of the GHG Protocol Scope 2 guidance. For more information on this refer to CDP Technical Note: Accounting of Scope 2 emissions. Low-carbon technology type (column 4) • Select the low-carbon technology type specified in the contractual instrument. • Please refer to the CDP Technical note on Biofuels for guidance on biomass/biofuel sustainability. If you select the option "Sustainable biomass", provide the criteria used to classify the biomass as sustainable (e.g. certification) in column 10 "Comment". • If you select either biomass option, specify in column 10 "Comment" if the biomass technology type refers to bioenergy plants fitted with carbon capture and storage (BECCS). • If you are unable to disaggregate by technology type or are buying instruments for blended electricity from various low-carbon or renewable sources, select either "Low-carbon energy mix, please specify" or "Renewable electricity mix, please specify". • Note that natural gas and fossil fuel-based combined heat and power (CHP) are not considered low-carbon technologies and should not be included here. For more information on CDP's definition of low-carbon, please refer to the "Explanation of terms". Low-carbon energy consumed via selected sourcing method in the reporting year (MWh) (column 5) • Note that all purchases of low-carbon energy (as defined in the "Explanation of terms") should be reported in this question, even if their associated emission factor is marginally above zero. • Tracking instrument used (column 6) • In markets where no certificates are available, the tracking instrument may be just an electricity supply contract with the supplier. In this case, select "Contract". • If you select "Other, please specify" to report a tracking instrument not listed here, ensure that the instrument complies with the Scope 2 Quality Criteria of the GHG Protocol Scope 2 guidance and provide more information in column 10 "Comment". For more information on this refer to the CDP Technical Note: Accounting of Scope 2 emissions. Country/area of origin (generation) of the low-carbon energy or energy attribute (column 7) • Note that this is referring to the country/area where the renewable electricity was generated and/or the country/area where the purchased attribute certificates were generated from. E.g. if you have a PPA with a solar energy generator supported by Guarantees of Origin certificates from Spain to cover your consumption in Spain, Italy,

	and France, you should enter "Spain" as the country of origin for your consumption in Spain, Italy, and France. • For companies selecting "Default delivered electricity (e.g. standard product offering by an energy supplier) from a grid that is 95% or more low-carbon and where there is no mechanism for specifically allocating low-carbon electricity", note that the country/area of origin (this column) must be the same as the country/area of consumption (column 1). Are you able to report the commissioning or re-powering year of the energy generation facility? (column 8) • This refers to the year when the power plant went in operation or if the facility was re-powered, the year of re-powering. • If the commissioning or re-powering year information is not provided in your contract, contact your supplier to request this information. • If you wish to report multiple generation facilities with a mix of known/unknown commissioning/re-powering dates, you should report the known and unknown facilities in separate rows, selecting "Yes" or "No" in this column accordingly. Commissioning year of the energy generation facility (column 9) • This column only appears if you select "Yes" in column 8 "Are you able to report the commissioning or re-powering year of the energy generation facility?". • If you are reporting multiple generation facilities in a single row (e.g., if you are unable/do not wish to disaggregate the supply by commissioning year), enter the commissioning/re-powering year of the oldest generation facility in the supply. Comment (column 10) (optional) • If you selected "Other, please specify" in column "Sourcing method" you may provide more details on the sourcing method you are reporting and explain how the contractual instrument complies with the Scope 2 Quality Criteria of the GHG Protocol Scope 2 guidance. • If you selected "Default delivered electricity (e.g. standard product offering by an energy supplier) from a grid that is 95% or more low-carbon and where there is no mechanism for specifically allocating low-carbon electricity", provide supporting information on the grid mix of the country/area selected in columns 1 and 7. • If you select the option "Sustainable biomass" in column 4 "Low-carbon technology type", provide the criteria used to classify the biomass as sustainable (e.g. certification). • If you select either biomass option in column 4 "Low-carbon technology type", specify if the biomass technology type refers to bioenergy plants fitted with carbon capture and storage (BECCS).
Explanation of terms	• Attribute: Descriptive or performance characteristics of a particular generation resource. For Scope 2 GHG accounting, the GHG emission rate attribute of the energy generation is required to be included in a contractual instrument in order to make a claim. • Biomass: any organic matter, i.e. biological material, available on a renewable basis. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. Biomass fuels should be sustainably sourced and certified where possible, and include: o Solid biofuels - solid fuels derived from biomass. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources.

	○ Biogas - a mixture of methane (CH_4) and carbon dioxide (CO_2) used as fuel and produced by bacterial degradation of organic matter or through gasification of biomass. ○ Liquid biofuels - liquid fuels derived from biomass such as ethanol and biodiesel. • Contractual instrument (or 'instrument'): Any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation, or for unbundled attribute claims. Markets differ as to what contractual instruments are commonly available or used by companies to purchase energy or claim specific attributes about it, but they can include energy attribute certificates (e.g. RECs, GOs), direct contracts (PPAs), green tariffs and other instruments. • Energy attribute certificate: A category of contractual instruments used in the energy sector to convey information about energy generation to other entities involved in the sale, distribution, consumption, or regulation of electricity. • Impactful electricity procurement: an electricity sourcing strategy which accelerates the transition to zero-carbon grids, either directly, by contributing to bringing new low-carbon or renewable capacity into the grid, or indirectly, through signals sent to markets and policymakers by a company's demand for voluntarily procured low-carbon and renewable electricity. • Low-carbon energy: in line with the IEA definition, low-carbon technologies are technologies that produce low – or zero – greenhouse-gas emissions while operating. In the power sector this includes fossil-fuel plants fitted with carbon capture and storage, nuclear plants and renewable-based generation technologies. Natural gas, combined cycle gas turbine and fossil fuel-based combined heat and power (cogeneration), despite being less carbon intensive than other means of electricity production like coal, are not considered low-carbon. • Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004). • Unbundled energy attribute certificate: An energy attribute certificate that is separate, and may be traded separately, from the underlying energy produced.
Example response	

The company does not consume any purchased or acquired heat, steam, or cooling. In question 7.30.1 they have reported that they consume 159,800 MWh of electricity from renewable sources, 40,200 MWh from non-renewable sources, and 200,000 MWh total.

Country/area	Sourcing method	Energy carrier	Low-carbon technology type	Low-carbon energy consumed via selected sourcing method in the reporting	Tracking instrument used	Country/area of origin (generation) of the low-carbon energy or energy attribute

				year (MWh)		
USA	Physical power purchase agreement (physical PPA) with a grid-connected generator	Electricity	Wind	3500	US-REC	USA
USA	Unbundled procurement of Energy Attribute Certificates (EACs)	Electricity	Wind	100,000	US-REC	USA
Canada	Physical power purchase agreement (physical PPA) with a grid-connected generator	Electricity	Wind	2000	US-REC	Canada
USA	Purchase from an on-site installation owned by a third party (on-site PPA)	Electricity	Solar thermal	51,800	US-REC	USA
Canada	Purchase from an on-site installation owned by a third party (on-site PPA)	Electricity	Wind	4300	US-REC	Canada

Are you able to report the commissioning or re-powering year of the energy generation facility?	Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)	Comment
Yes	2013	Our operations in the USA have signed a PPA with a wind farm

		project to cover part of the electricity consumption during the period. From the project they receive US-RECs which are all Green-e certified.
Yes	2020	We have bought 100,000 RECs from an Oklahoma wind farm.
Yes	2021	
Yes	2021	We have established a contract with Solar Organization, a provider of solar energy solutions, where they own and manage all our on-site installations and we buy the electricity from them.
Yes	2017	We have established a contract with Solar Organization, a provider of solar energy solutions, where they own and manage all our on-site installations and we buy the electricity from them.

Tags		
Authority type	All requesters, not shown to RE100	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All except EU and FS

(7.30.15) Provide details on the average emission factor used for all transport movements per mode that directly source energy from the grid.

Question details	
Question dependencies	This question only appears if you select LDV, HDV or Rail in 1.21
Change from last year	No change
Rationale	Some alternatives to fossil-fuel based technologies use electrical energy sourced from the grid. The degree to which this replacement has climate benefits depends on the average grid emission factor used for the movements of these electric vehicles.
Response options	Please complete the following table.

1	2	3	4
Category	Emission factor unit	Average emission factor: unit value	Comment
Select from: • LDV • HDV • Rail	Select from: • gCO_2/kWh • gCO_2e/kWh	Numerical field [enter a number from 0-999,999,999 using a maximum of 3 decimal places]	Text field [maximum 2,400 characters]

[Add Row]

Requested content	General • To understand the differences in emissions between fuel-based and electricity-based transport movements, it is important to be aware of the average emission factors of the electricity the company is sourcing. • This question therefore asks for an average emission factor for all your owned transport movements in Scope 2. This does not include the emission factors of Scope 3 emissions for this year's disclosure. • If you do not have any transport movements that directly source energy from the grid you should specify this in the 'Comment' column (column 4) and columns 1, 2 and 3 should remain blank. Category (column 1) • This question is only asked to transport service companies who utilize rail transport, Light Duty Vehicle transport or Heavy Duty Vehicle transport in their own or outsourced transport movements, and which will be presented to you if you selected LDV, HDV and/or Rail in response to 1.21.

	• While it is recognized that shipping transportation has demonstrated the technical feasibility of electrified transport, this has not penetrated the market to a degree where an average company-level emission factor becomes relevant for the CDP disclosure. If your organization wishes to report on innovations in this area, please refer to 7.75 and 5.5. Emission factor unit (column 2) • You may choose to report in either CO_2 or CO_2-equivalent for the emission factor. Average emission factor: unit total (column 3) • Provide the average emission factor for the transport movements that used electrical energy in the reporting year. This is a singular data point that averages the emission factor for all electrical energy purchased by your organization for the purposes of transporting goods and/or passengers. • If you were unable to obtain primary data from the use phase of your vehicles and instead used assumed emission factors, please state in the Comment column what is the source of your Test Cycle Electrical Energy consumption factors, and whether or not you have used an uplift factor to compensate for the difference between real world and test conditions. Comment (column 4) (optional) • You may comment on any exclusions in the coverage of total Scope 2 emissions from transport movements for the calculation of this emission factor, and, if applicable, provide details for assumed emission factors. • If you do not have any transport movements that directly source energy from the grid you should specify this here.
Explanation of terms	gCO_2/kWh: grams of carbon dioxide (gCO_2) per kilowatt hour (kWh) of electricity consumed. gCO_2e/kWh: grams of carbon dioxide equivalents (CO_2e) emitted per kilowatt hour (kWh) of electricity consumed. CO_2-equivalents allow for other Greenhouse Gases (GHGs) to be expressed in relation to CO_2 based on their Global Warming Potentials (GWPs). Test cycle electrical energy consumption factor: the official test cycle results for certain vehicles, applicable to LDVs, that state the test-result vehicle efficiency. Uplift factor: a factor applied to NEDC (New European Drive Cycle) assessed fuel consumption (gCO_2/km), to consider the combined 'real-world' effects on fuel consumption. As uplift factors vary over time, it is recommended that uplift factors relevant to the reporting year are used. For LDV emissions uplifts, see the following ICCT publication entitled "From Laboratory to Road: A 2016 update of official and 'real-world' fuel consumption and CO_2 values for passenger cars in Europe".

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	TS

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

Question details	
Change from last year	Modified question
Rationale	Breaking down energy consumption to the country/area level is useful to data users, as this is often the level at which energy-related legislation is introduced. Data from this question can help guide the development of energy-related legislation.
Ambition	Companies provide a comprehensive account of their energy consumption, including a breakdown by country/area for transparency.
Response options	Please complete the following table.

0	1	2	3	4	5	6	7
Country/area	Consumption of purchased electricity (MWh)	Consumption of self-generated electricity (MWh)	Is some or all of this electricity consumption excluded from your RE100 commitment?	Consumption of purchased heat, steam, and cooling (MWh)	Consumption of self-generated heat, steam, and cooling (MWh)	Total electricity/heat/steam/cooling energy consumption (MWh) [Auto-calculated]	Provide details of the electricity consumption excluded
Fixed rows populated with countries/areas reported in question 1.7.	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Select from: • Yes • No	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [0-999,999,999,999]	Text field [Maximum 2500 characters]

[Fixed row]

Requested content	Country/area (column 0) • Organizations will see a row for each country/area they have selected in question 1.7. • You should include consumption from both purchased/acquired energy and self-generated energy in this question. Energy that is purchased but not physically consumed (e.g. traded power, financial instruments), or energy that is self-generated but not physically consumed, should not be included here. • Energy consumption figures should be for the reporting year only (as defined by your answer to 1.4).

	• If you are a member of the RE100 initiative, the loads that your organization may have chosen to exclude from the boundary of its RE100 target under the RE100 materiality threshold provisions (see Section Six: Additional provisions in the RE100 technical criteria) must still be reported in this question, using column 3 to identify where the materiality threshold provisions have been applied. Consumption of purchased electricity (MWh) (column 1) • Enter in megawatt hours (MWh) the total amount of purchased electricity consumed by your organization in the selected country/area in the reporting year. • Consumption of self-generated electricity (MWh) (column 2) • Enter in megawatt hours (MWh) the total amount of self-generated electricity consumed by your organization in the selected country/area in the reporting year. • If your organization has self-generated and consumed electricity using Combined Heat and Power (CHP), this electricity consumption should be included here. Is some or all of this consumption excluded from your RE100 commitment? (column 3) • This column only appears to RE100 companies. • Select "Yes" if you are excluding some or all of the electricity consumption reported in both column 1 and column 2. • This column must only be used to describe where your organization is exempting consumption in particular countries or areas from the boundary of its RE100 target as allowed under the RE100 materiality threshold provisions (see Section Six: Additional provisions in the RE100 technical criteria). Consumption of purchased heat, steam, and cooling (MWh) (column 4) • Enter in megawatt hours (MWh) the total amount of purchased heat, steam, and cooling consumed by your company in the selected country/area in the reporting year. • You should only account for heat generated in transferable mediums, i.e. the forms of heat that may also be purchased or acquired from third parties (as listed in question 7.30.1). Consumption of self-generated heat, steam, and cooling (MWh) (column 5) • Enter in megawatt hours (MWh) the total amount of heat, steam, and cooling self-generated and consumed by your organization in the selected country/area in the reporting year. • This column should be used to report your organizations consumption of self-generated heat, steam, and cooling generated from Combined Heat and Power (CHP). Total electricity/heat/steam/cooling energy consumption (MWh) (column 6) • This column will be auto-calculated from columns 1, 2, 4 and 5. Ensure you have entered data into these columns. Provide details of the electricity consumption excluded (column 7) • Specify whether you are excluding the entire electricity consumption reported in columns 1 and 2, or just part. • If you are not excluding the entire consumption, explain what is being excluded. • If you do not specify, RE100 will assume you are reporting an exclusion of the entire consumption reported in column 2 and column 3.

Tags	
Authority type	All requesters

Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.30.17) Provide details of your organization's renewable electricity purchases in the reporting year by country/area.

Question details	
Question dependencies	This question only appears to RE100 members.
Change from last year	Modified guidance
Rationale	Renewable energy is critical to the transition to a low-carbon economy. In this question, organizations can demonstrate progress towards their RE100 commitment by reporting the details of their renewable electricity purchasing by country/area.
Ambition	Companies choose impactful procurement options that lead to new renewable energy capacity being brought into the grid, such as power purchase agreements (PPAs).
Response options	Please complete the following table.

1	2	3	4	5	6
Country/area of consumption of purchased renewable electricity	Sourcing method	Renewable electricity technology type	Renewable electricity consumed via selected sourcing method in the reporting year (MWh)	Tracking instrument used	Country/area of origin (generation) of purchased renewable electricity
Select from: [Country/area drop-down list]	Select from: • Purchase from an on-site installation owned by a third party (on-site PPA) • Direct line to an off-site generator owned by a third party with no grid transfers (direct-line PPA) • Physical power purchase agreement (physical PPA) with a grid-	Select from: • Solar • Wind • Large hydropower (>25 MW) • Small hydropower (<25 MW) • Hydropower (capacity unknown) • Sustainable Biomass • Renewable hydrogen fuel cell • Marine • Geothermal	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Select from: • Contract • GEC • GO • Indian REC • I-REC • J-Credit (Renewable) • Korean REC • Australian LGC • NFC – Renewable • NZECS • REGO • TIGR • T-REC • US-REC • zaREC • Other, please specify	Select from: [Country/area drop-down list]

	connected generator • Financial (virtual) power purchase agreement (VPPA) • Project-specific contract with an electricity supplier • Retail supply contract with an electricity supplier (retail green electricity) • Unbundled procurement of Energy Attribute Certificates (EACs) • Default delivered renewable electricity from the grid, supported by energy attribute certificates • Default delivered renewable electricity from the grid in a market with 95% or more renewable electricity capacity and where there is no mechanism for specifically allocating renewable electricity	• Renewable electricity mix, please specify		• No instrument used	

7	8	9	10	11	12
Are you able to report the commissioning or re-powering year of the energy generation facility?	Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)	Vintage of the renewable energy/attribute (i.e. year of generation)	Supply arrangement start year	Ecolabel associated with purchased renewable electricity	Comment
Select from: • Yes • No	Numerical field [enter a number between 1900-2025]	Select from: • Before 2020 • 2020 • 2021 • 2022	Numerical field [enter a number between 1900-2025]	Select from: • Green-e Certified(R) Renewable Energy • EKOenergy label	Text field [maximum 2,500 characters]

		• 2023 • 2024 • 2025		• Gold Standard Renewable Energy • Grüner Strom Label • Peace-REC (P-REC) • TÜV SÜD • Other, please specify • No additional, voluntary label	

[Add row]

Requested content	General • RE100 member companies must disclose a country/area breakdown of their purchasing of renewable electricity. RE100 uses the disclosures in this question as part of assessing member companies' claims to use of renewable electricity against the RE100 technical criteria. • If you have operations in countries/areas where the default delivered electricity from the grid is 95% or more renewable and where there is no mechanism for specifically allocating renewable electricity (i.e., Uruguay, Paraguay or Ethiopia, as indicated in column 1), you should select "Default delivered renewable electricity from the grid in a market with 95% or more…" in column 2, "Renewable electricity mix" in column 3, "No instrument used" in column 5, the country/area of origin in column 6, and then you may leave the remaining columns (7, 8, 9, 10, 11) blank. • Data and information you provide should be for the reporting year only (as defined by your answer to 1.4). Country/area of consumption of purchased renewable electricity (column 1) • You should add multiple rows per country/area if you used multiple sourcing methods in the same country/area in the reporting year. E.g. if you have a green electricity contract in India for one of your offices and purchased unbundled Indian RECs to cover the electricity consumption of another office, you should add two separate rows for India. Sourcing method (column 2) • Different sourcing methods in the same country/area should be reported in separate rows. E.g. if you have a PPA with a solar energy generator supported by Guarantees of Origin certificates from Spain to cover your consumption in Spain, Italy, and France, you should enter data in three rows and select the country/area of consumption as Spain, Italy, and France. • For detailed definitions of the sourcing methods listed in this question, please refer to Section Four: Recognized procurement types for renewable electricity in the RE100 technical criteria. • If you select "Default delivered renewable electricity from the grid, supported by energy attribute certificates", please ensure you have read and understood the guidance in Section Four: 5.1 in the RE100 technical criteria. You should provide information to support your claim in the "Comment" column (column 12). Renewable electricity technology type (column 3) • If selecting biomass, note that as per the RE100 Technical Criteria, RE100 only considers electricity generated from biomass (and biogas) renewable if it is sustainably sourced. See

	the "Explanation of terms" for more information. If you select the option "Sustainable biomass", provide a justification for why you consider the biomass to be sustainable in the "Comment" column (column 12). • If you select "Sustainable biomass", specify in column 12 "Comment" if the biomass technology type refers to bioenergy plants fitted with carbon capture and storage (BECCS). Tracking Instrument Used (column 5) • For guidance on the accepted instruments for renewable electricity attribute delivery, please refer to the RE100 credible claims paper and FAQs. • In markets where no certificates are available, the tracking instrument may be just an electricity supply contract with the supplier. In this case, select "Contract". • If you select "Other, please specify" to report a tracking instrument not listed here, ensure that the instrument meets the criteria for contractual allocation of attributes outlined in the RE100 credible claims paper and provide more information in the "Comment" column (column 12). Country/area of origin (generation) of the renewable electricity/attribute consumed (column 6) • Note that this is referring to the country/area where the renewable electricity was generated and/or the country/area where the purchased attribute certificates were generated from. E.g. if you have a PPA with a solar energy generator supported by Guarantees of Origin certificates from Spain to cover your consumption in Spain, Italy, and France, you should enter "Spain" as the country of origin for your consumption in Spain, Italy, and France. • Claims to use of renewable electricity are only credible if they observe market boundaries. This means a claim to use of renewable electricity must be based on generation of renewable electricity occurring in the same market for renewable electricity that use is claimed in. Markets for renewable electricity are always countries' geographic boundaries, except for the international single markets for renewable electricity recognized by CDP and RE100 between the United States and Canada, and between European countries meeting the conditions outlined in Appendix B of the RE100 technical criteria (also detailed in Chapter 2.3 Claiming renewable electricity use: the market boundary criteria of the CDP Technical Note: Accounting of Scope 2 emissions). • RE100 will not recognize claims to use of renewable electricity which do not observe its defined market boundaries. If no country/area of origin of renewable electricity is specified and no other information is disclosed which RE100 can use to determine that sourcing was in-market (such as an appropriate tracking mechanism from the same country/area as the country/area of consumption), RE100 will be forced to determine the sourcing out-of-market. Are you able to report the commissioning or re-powering year of the energy generation facility? (column 7) • This refers to the year when the power plant went into operation or if the facility was re-powered, the year of re-powering. • If you wish to report multiple generation facilities with a mix of known/unknown commissioning/re-powering dates, you should report the known and unknown facilities in separate rows, selecting "Yes" or "No" in this column accordingly. Commissioning year of the energy generation facility (column 8) • This column is only presented if you select "Yes" in column 7 "Are you able to report the commissioning or re-powering year of the energy generation facility?". • If the commissioning or re-powering year information is not provided in your contract, you may be able to source this information by contacting your supplier.

	• If you are reporting multiple generation facilities in a single row (e.g., if you are unable/do not wish to disaggregate the supply by commissioning year), you should enter in this column the commissioning/re-powering year of the oldest generation facility in the supply. Vintage of the renewable energy/attribute (column 9) • This refers to the year the renewable electricity and/or the attribute certificates purchased were generated. • RE100 recommends that the vintage of the electricity generation be reasonably close to the reporting year of the electricity consumption to which it is applied. Supply arrangement start year (column 10) • This disclosure is asked for so that RE100 can identify whether supply arrangements are eligible for grandfathering under the 2022 RE100 technical criteria changes (please review the grandfathering language around market boundaries in Appendix B and the commissioning or re-powering date limit in Section Five). • It is also compared with the commissioning year column to establish whether your organization is the original off-taker of a particular project (when the supply arrangement start and commissioning or re-powering differ by no more than one year). • For bundled procurement contracts, enter the year in which the physical supply started. • For unbundled procurement contracts (e.g. virtual power purchase agreements or contracts for unbundled EACs), enter the year of the first electricity supply period the contract was used to decarbonize. • This disclosure will only impact RE100's assessment of your organization's reporting when your organization submits its first full year of reporting starting on or after 1 January 2024. Additional, voluntary label associated with purchased renewable electricity (column 11) • Provide more details of the selected voluntary label in the "Comment" column (column 12). • If there is no voluntary label associated with this renewable electricity purchase, select "No additional, voluntary label". Comment (column 12) • If you select "Sustainable biomass" in column "Renewable technology type" (column 3), specify if the biomass technology type refers to bioenergy plants fitted with carbon capture and storage (BECCS).
Explanation of terms	• Attribute: Descriptive or performance characteristics of a particular generation resource. For Scope 2 GHG accounting, the GHG emission rate attribute of the energy generation is required to be included in a contractual instrument in order to make a claim. • Contractual instrument (or 'instrument'): Any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation, or for unbundled attribute claims. Markets differ as to what contractual instruments are commonly available or used by companies to purchase energy or claim specific attributes about it, but they can include energy attribute certificates (e.g. RECs, GOs), direct contracts (PPAs), green tariffs and other instruments. • Energy attribute certificate: A category of contractual instruments used in the energy sector to convey information about energy generation to other entities involved in the sale, distribution, consumption, or regulation of electricity. • Unbundled energy attribute certificate: An energy attribute certificate that is separate, and may be traded separately, from the underlying energy produced. • Biomass: any organic matter, i.e. biological material, available on a renewable basis. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. Biomass fuels should be sustainably sourced and certified where possible, and include:

	○ Solid biofuels - solid fuels derived from biomass. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. ○ Biogas - a mixture of methane (CH4) and carbon dioxide (CO2) used as fuel and produced by bacterial degradation of organic matter or through gasification of biomass. ○ Liquid biofuels - liquid fuels derived from biomass such as ethanol and biodiesel • Impactful electricity procurement: an electricity sourcing strategy which accelerates the transition to zero-carbon grids, either directly, by contributing to bringing new low-carbon or renewable capacity into the grid, or indirectly, through signals sent to markets and policymakers by a company's demand for voluntarily procured low-carbon and renewable electricity.
Example Response	

The company does not consume any purchased or acquired heat, steam, or cooling. In question 7.30.1 they have reported that they consume 159,800 MWh of electricity from renewable sources, 40,200 MWh from non-renewable sources, and 200,000 MWh total.

Country/area	Sourcing method	Energy carrier	Low-carbon technology type	Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)	Tracking instrument used	Country/area of origin (generation) of the low-carbon energy or energy attribute
USA	Physical power purchase agreement (physical PPA) with a grid-connected generator	Electricity	Wind	3500	US-REC	USA
USA	Unbundled procurement of Energy Attribute Certificates (EACs)	Electricity	Wind	100,000	US-REC	USA
Canada	Physical power purchase agreement (physical PPA) with a grid-connected generator	Electricity	Wind	2000	US-REC	Canada
USA	Purchase from an on-site installation	Electricity	Solar thermal	51,800	US-REC	USA

	owned by a third party (on-site PPA)					
Canada	Purchase from an on-site installation owned by a third party (on-site PPA)	Electricity	Wind	4300	US-REC	Canada

Are you able to report the commissioning or re-powering year of the energy generation facility?	Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)	Comment	Vintage of the renewable energy/attribute (i.e. year of generation)	Supply arrangement start year	Ecolabel associated with purchased renewable electricity
Yes	2013	Our operations in the USA have signed a PPA with a wind farm project to cover part of the electricity consumption during the period. From the project they receive US-RECs which are all Green-e certified.	2024	2013	Green-e Certified(R) Renewable Energy
Yes	2020	We have bought 100,000 RECs from an Oklahoma wind farm.	2024	2020	Green-e Certified(R) Renewable Energy
Yes	2021		2024	2021	Green-e Certified(R) Renewable Energy
Yes	2021	We have established a contract with Solar Organization, a provider of solar energy solutions, where they	2024	2021	Green-e Certified(R) Renewable Energy

		own and manage all our on-site installations and we buy the electricity from them.			
Yes	2017	We have established a contract with Solar Organization, a provider of solar energy solutions, where they own and manage all our on-site installations and we buy the electricity from them.	2024	2017	Green-e Certified(R) Renewable Energy

Tags		
Authority type	RE100	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.30.18) Provide details of your organization's low-carbon heat, steam, and cooling purchases in the reporting year by country/area.

Question details	
Question dependencies	This question only appears to RE100 members. This question only appears if you select "Yes" in response to "Consumption of purchased or acquired heat", "Consumption of purchased or acquired steam" or "Consumption of purchased or acquired cooling" in response to 7.30.
Change from last year	No change
Rationale	Providing details of low-carbon heat, steam and cooling purchases by country/area provides data users with a more complete picture of an organization's low carbon and renewable energy consumption.
Ambition	Companies procure, heat, steam and/or cooling from low-carbon technology types.
Response options	Please complete the following table.

1	2	3	4	5	6

Sourcing method	Country/area of consumption of low-carbon heat, steam or cooling	Energy carrier	Low-carbon technology type	Low-carbon heat, steam, or cooling consumed (MWh)	Comment
Select from: • None (no purchases of low-carbon heat, steam, or cooling) • Heat/steam/cooling supply agreement • Other, please specify	Select from: [Country/area drop-down list]	Select from: • Heat • Steam • Cooling • Heat, steam, and cooling combined	Select from: • Solar • Sustainable biomass • Other biomass • Low-carbon energy mix • Renewable energy mix • Other, please specify	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Text field [maximum 2,500 characters]

[Add row]

Requested content	General • Data and information you provide should be for the reporting year only (as defined by your answer to 1.4). Sourcing method (column 1) • Different sourcing methods in the same country/area should be reported in separate rows. • If you select "Other, please specify" to report a sourcing method not listed here, provide more information on the sourcing method used in the "Comment" column (column 6). Country/area of consumption of the low-carbon heat, steam, or cooling (column 2) • This column is only presented if something other than "None (no purchases of low-carbon heat, steam, or cooling)" is selected in column 1. • Select the country/area where the purchased heat, steam, or cooling has been consumed. • You should add multiple rows per country/area if you have used multiple sourcing methods or technology types in the same country/area in the reporting year. Energy carrier (column 3) • This column is only presented if something other than "None (no purchases of low-carbon heat, steam, or cooling)" is selected in column 1. Low-carbon technology type (column 4) • This column is only presented if something other than "None (no purchases of low-carbon heat, steam, or cooling)" is selected in column 1. • If you select the option "Sustainable biomass", provide the criteria used to classify the biomass as sustainable (e.g. certification) in the "Comment" column (column 6). Please refer to the CDP Technical note on Biofuels for guidance on biomass/biofuel sustainability. • If you select either biomass option, specify in column 6 "Comment" if the biomass technology type refers to bioenergy plants fitted with carbon capture and storage (BECCS). Low-carbon heat, steam, or cooling consumed (MWh) (column 5) • This column is only presented if something other than "None (no purchases of low-carbon heat, steam, or cooling)" is selected in column 1.

	Comment (column 6) (optional) • If you select the option "Sustainable biomass" in column "Low-carbon technology type" (column 4), provide the criteria used to classify the biomass as sustainable (e.g. certification). • If you select either biomass option in column "Low-carbon technology type" (column 4), specify if the biomass technology type refers to bioenergy plants fitted with carbon capture and storage (BECCS).
Explanation of terms	Low-carbon energy: in line with the IEA definition, low-carbon technologies are technologies that produce low – or zero – greenhouse-gas emissions while operating. In the power sector this includes fossil-fuel plants fitted with carbon capture and storage, nuclear plants and renewable-based generation technologies. Natural gas, combined cycle gas turbine and fossil fuel-based combined heat and power (cogeneration), despite being less carbon intensive than other means of electricity production like coal, are not considered low-carbon. Biomass: any organic matter, i.e. biological material, available on a renewable basis. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. Biomass fuels should be sustainably sourced and certified where possible, and include: • Solid biofuels - solid fuels derived from biomass. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. • Biogas - a mixture of methane (CH4) and carbon dioxide (CO2) used as fuel and produced by bacterial degradation of organic matter or through gasification of biomass. • Liquid biofuels – liquid fuels derived from biomass such as ethanol and biodiesel.

Tags		
Authority type	RE100	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.30.19) Provide details of your organization's renewable electricity generation by country/area in the reporting year.

Question details	
Question dependencies	This question only appears to RE100 members
Change from last year	Modified guidance
Rationale	Renewable energy is critical to the transition to a low-carbon economy. In this question, companies can demonstrate progress towards their RE100 commitment by reporting the details of their renewable electricity generation by country/area.
Ambition	Companies increase the share of self-generated electricity that comes from renewable sources.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3	4	5	6
Country/area of generation	Renewable electricity technology type	Facility capacity (MW)	Total renewable electricity generated by this facility in the reporting year (MWh)	Renewable electricity consumed by your organization from this facility in the reporting year (MWh)	Energy attribute certificates issued for this generation
Select from: [Country/area drop-down list]	Select from: • Solar • Wind • Hydropower • Sustainable biomass • Renewable hydrogen fuel cell • Marine • Geothermal • Renewable electricity mix, please specify	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Select from: • Yes • No

7	8
Type of energy attribute certificate	Comment
Select from: • GEC • GO • Indian REC • I-REC • J-Credit (Renewable) • Korean REC • Australian LGC • NFC – Renewable • NZREC • REGO • TIGR • T-REC • US-REC • Other, please specify	Text field [maximum 2,500 characters]

[Add row]

Requested content	General • You should add a separate row for each of your organization's generation facilities that generated renewable electricity in the reporting year (as defined by your answer to 1.4). Country/area of generation (column 1) • You should enter multiple rows per country/area if you have several facilities in the same country/area that generated renewable electricity in the reporting year.

	Renewable electricity technology type (column 2) • You should enter multiple rows per technology type if you have several facilities for a particular technology type in the same country that generated renewable electricity in the reporting year. • If selecting biomass, note that as per the RE100 Technical Criteria, RE100 only considers electricity generated from biomass (and biogas) renewable if it is sustainably sourced. See the "Explanation of terms" for more information. If you select the option "Sustainable biomass", provide a justification for why you consider the biomass to be sustainable in the "Comment" column (column 8). If you select "Sustainable biomass", specify in column 8 "Comment" if the biomass technology type refers to bioenergy plants fitted with carbon capture and storage (BECCS). Renewable electricity consumed by your organization from this facility in the reporting year (MWh) (column 5) • This column is a subset of column 4; the amount entered cannot be higher than the amount entered in column 4. If the entered amount is equal to the amount in column 4, then your organization directly consumed all the electricity that your organization generated from this facility in the reporting year. • If you did not directly consume electricity from this facility in the reporting year enter 0. Type of energy attribute certificate (column 7) • This column is only presented if you select "Yes" in column 6. • For guidance on the accepted certificates for renewable electricity attribute delivery, please refer to the RE100 FAQs. • If you select "Other, please specify" to report an energy attribute certificate not listed here, ensure that the certificate meets the criteria for contractual allocation of attributes outlined in the RE100 credible claims paper and provide more information in the "Comment" column (column 8). Comment (column 8) If you selected "Sustainable biomass" in column "Renewable technology type" (column 2), specify if the biomass technology type refers to bioenergy plants fitted with carbon capture and storage (BECCS).
Explanation of terms	Energy attribute certificate: A category of contractual instruments used in the energy sector to convey information about energy generation to other entities involved in the sale, distribution, consumption, or regulation of electricity. Biomass: any organic matter, i.e. biological material, available on a renewable basis. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. Biomass fuels should be sustainably sourced and certified where possible, and include: • Solid biofuels - solid fuels derived from biomass. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. • Biogas - a mixture of methane (CH_4) and carbon dioxide (CO_2) used as fuel and produced by bacterial degradation of organic matter or through gasification of biomass. • Liquid biofuels – liquid fuels derived from biomass such as ethanol and biodiesel

Tags		
Authority type	RE100	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.30.20) Describe how your organization's renewable electricity sourcing strategy directly or indirectly contributes to bringing new capacity into the grid in the countries/areas in which you operate.

Question details	
Question dependencies	This question only appears to RE100 members
Change from last year	No change
Rationale	Renewable electricity sourcing mechanisms differ in the impact they have on the grid in the market where the electricity is consumed. This question informs data users about the contribution that RE100 members' sourcing strategies make to driving new renewable electricity capacity.
Response options	This is an open text question with a limit of 5,000 characters.

Requested content	General
	
	• Explain how your organization's renewable electricity sourcing strategy has a positive impact on the renewable electricity market in countries/areas in which you operate by directly contributing to bringing new capacity into the grid.
	• The impact categories for different renewable sourcing mechanisms are as follows:
	  ○ Direct impact is the result of a sourcing strategy that directly enables or finances a new renewable electricity asset, or part of it, either through investment or through a financial commitment from the sourcing entity (e.g. long-term power purchase agreement).
	  ○ Indirect impact is the result of a sourcing strategy where the sourcing is not directly financing or enabling new renewable electricity capacity, but which could be indirectly incentivizing the development of new capacity through other mechanisms (e.g. sending important market signals).
	• Please refer to the RE100 Leadership Paper on impactful procurement for more information.

Tags		
Authority type	RE100	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.30.21) In the reporting year, has your organization faced barriers or challenges to sourcing renewable electricity?

Question details

Question dependencies	This question only appears to RE100 members
Change from last year	No change
Rationale	Insight into the challenges organizations face in meeting their RE100 targets is one of RE100's tools to advocate policy change to make renewable electricity more accessible.
Response options	Please complete the following table.

1	2
Challenges to sourcing renewable electricity	Challenges faced by your organization which were not country/area-specific*
Select from: • Yes, in specific countries/areas in which we operate • Yes, not specific to a country/area • Yes, both in specific countries/areas and in general • No	Text field [maximum 2,500 characters]

[Fixed row]

Requested content	Challenges to sourcing renewable electricity (column 1) • Country/area-specific challenges are those at a local level, relating to specific markets e.g. prohibitive costs in a certain market, or no market for voluntary procurement of renewable electricity • General challenges are those at a global level, impacting your operations across different markets e.g. policy barriers, lack of options, complex landlord/tenant structures, lack of data etc. • If you select "Yes, in specific countries/areas in which we operate", or "Yes, both in specific countries/areas and in general", you will have the opportunity to provide details of your country/area-specific challenges in the subsequent question. Challenges faced by your organization which were not country/area-specific (column 2) • This column is only presented if "Yes, not specific to a country/area" or "Yes, both in specific countries/areas and in general" is selected in column 1. • Briefly describe the challenges which have prevented you from sourcing renewable electricity in general across your operations in different markets.

Tags		
Authority type	RE100	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.30.22) Provide details of the country/area-specific challenges to sourcing renewable electricity faced by your organization in the reporting year.

Question details	
Question dependencies	This question only appears if "Yes, in specific countries/areas in which we operate" or "Yes, both in specific countries/areas and in general" is selected in response to column 1 in 7.30.21.
Change from last year	No change
Rationale	Transparency of the challenges that organizations have faced in meeting their RE100 targets is crucial to show policy makers that there is unmet demand from companies, which can be used as a driver of change to progress the renewable energy ambition.
Response options	Please complete the following table.

1	2	3
Country/area	Reasons why it was challenging to source renewable electricity within selected country/area	Provide additional details of the barriers faced within this country/area
Select from: [Country/area drop-down list]	Select all that apply: • Arbitrary grid usage charges • Inability to buy Energy Attribute Certificates (EACs) in small quantities • Inability to make exclusive renewable electricity usage claims • Internal capacity issues • Issues with landlord-tenant arrangements • Lack of credible renewable electricity procurement options (e.g. EACs, Green Tariffs) • Lack of market data • Lack of electricity market structure supporting bilateral PPAs • Limited supply of renewable electricity in the market • Prohibitively priced renewable electricity • Regulatory instability • Small load • Unable to get internal company approval • Other, please specify	Text field [maximum 2,500 characters]

[Add row]

Requested content	General • Add a row for each country/area in which you have faced challenges and/or barriers to sourcing renewable electricity in the reporting year. Provide additional details of the barriers faced within this country/area (column 2) • Expand on your selection in column 2, for example, if you selected "Regulatory instability", provide details of the regulation(s) which present a challenge to your organization's sourcing of renewable electricity in the country/area selected in column 1.

Tags		
Authority type	RE100	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.31) Does your organization consume fuels as feedstocks for chemical production activities?

Question details	
Change from last year	No change
Rationale	Consumption of energy as feedstock is unique to chemical sector. A large share of fuels used by the sector is not combusted but is consumed as raw material. The information requested in this and the following question provides transparency on the level of fuel feedstocks consumed by your organization.
Response options	Select one of the following options: • Yes • No

Requested content	General • Select "Yes" if your organization consumes any types of fuels – fossil fuels (e.g. oil or natural gas) or renewable sources such as biomass – as feedstocks for the production of chemicals, regardless of whether the feedstock is purchased or produced by the organization.
Explanation of terms	• Feedstocks: Feedstocks are starting materials, ranging from fossil fuels to biomass-based resources. These materials are fed into a process, and converted into other commodities or resources, which are either used directly or further transformed. For example, in the steel industry, coking coal is converted to coke, which is used in the steel production. In the petrochemical industry, gaseous feedstocks (ethane, propane, or butane) are used to produce high value chemicals.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CH

(7.31.1) Disclose details on your organization's consumption of feedstocks for chemical production activities.

Question details

Question dependencies	This question only appears if you select "Yes" in response to 7.31.
Change from last year	Modified guidance
Rationale	A significant proportion of fuels used in the chemicals industry are consumed as feedstocks. The information requested in this question provides transparency on the level of fuel feedstocks consumed by your organization, as well as on their inherent carbon dioxide emission factor. This can be useful for quality checking of your emissions disclosure in question 7.19.
Response options	Please complete the following table.

1	2	3	4	5	6	7
Fuels used as feedstocks	Total consumption	Total consumption unit	Inherent carbon dioxide emission factor of feedstock, metric tons CO_2 per consumption unit	Heating value of feedstock, MWh per consumption unit	Heating value	Comment
Select from: • Anthracite • Coal • Lignite • Coke • Patent fuel / BKB • Petroleum coke • Diesel oil • Gas oil • Heavy fuel oil • Oil shale • Gasoline • White Spirit / SBP • Lubricants • Naphtha • Special Naphtha • Propane liquid • Propane gas • Ethane • Butane • LPG • Refinery gas	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Select from: • metric tons • thousand metric tons • thousand pounds • barrels • thousand barrels • gallons • thousand gallons • million gallons • liters • thousand liters • million liters • cubic feet • thousand cubic feet • million cubic feet • cubic meters • thousand cubic meters	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Select from: • LHV • HHV • Unable to confirm heating value	Text field [maximum 2,400 characters]

• Natural gas • Solid biofuel • Liquid biofuel • Waste biofuel • Biogas • Other, please specify						

[Add row]

Requested content	General • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • All fuel feedstocks (feedstocks that can also be fuels) consumed inside the organizational/sector boundary should be included, regardless of whether the feedstock was purchased or produced by the organization. For example, organizations owning refineries can use their own petrochemical feedstocks (e.g. naphtha) or purchase these feedstocks from third parties. • Note that this question requests only fuel feedstocks; non-fuel chemical feedstocks such as sulfuric acid, soda ash, lime etc, should not be reported. Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit (column 4) • Enter the inherent carbon dioxide emission factor, in metric tons CO_2 per consumption unit (selected in column 3). Inherent carbon dioxide emission factor is strictly defined as the feedstock's carbon content (by mass), multiplied by the molecular ratio between carbon dioxide and carbon ($CO_2 = C \times 44 / 12$). If carbon content data is unavailable, then you can use the feedstock's CO_2 emission factor assuming 100% combustion (oxidation factor = 1). Heating value of feedstock, MWh per consumption unit (column 5) • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh". Heating value (column 6) • You should respond by selecting either LHV or HHV. This relates to the value you provided in column 6. • Higher heating value (HHV) is also known as gross calorific value (GCV), and lower heating value (LHV) is also known as net calorific value (NCV). Typically, LHV/HHV ratio is 0.95 for solid and liquid hydrocarbon fuels, such as coal and oil, and 0.9 for gaseous hydrocarbon fuels, such as natural gas.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CH

(7.31.2) State the percentage, by mass, of primary resource from which your chemical feedstocks derive.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.31.
Change from last year	No change
Rationale	Increasing the share of alternative, low-carbon feedstocks is one of the key levers of decarbonization for the sector, so the share of biomass/waste in an organization's total chemical feedstock should be increasing year on year.
Response options	Please complete the following table:

0	1	2
Feedstock source	Percentage of total chemical feedstock (%)	Direction of change in percentage of total chemical feedstock from previous year
Oil	Percentage field [enter a number from 0-100 using a maximum of 2 decimal places]	Select from: • Increased • Decreased • No change
Natural Gas		
Coal		
Biomass		
Waste (non-biomass)		
Fossil fuel (where coal, gas, oil cannot be distinguished)		
Unknown source or unable to disaggregate		

[Fixed row]

Requested content	General • Complete this table for each of the primary feedstock sources consumed, directly or indirectly, by your organization for chemical production activities. • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • If you do not use any of the feedstocks listed in column 0, and as such that feedstock does not constitute a percentage of your total chemical feedstock, enter a 0 (zero) in the relevant row in column 1. • Negative numbers are not allowed. Percentage of total chemical feedstock (%) (column 1) • Enter the percentage of the total consumption of feedstock, by the ultimately derived primary resources listed in column 0. • Starting with the consumed feedstock, which may be a purchased feedstock or one produced upstream by the organization, determine the percentage split by primary resource and aggregate for all feedstock consumption. See "Example response" for further information. • If you are unable to disaggregate by fossil fuel type, then enter the percentage in the row "Fossil fuel (where coal, gas, oil cannot be distinguished)." This may be useful if you

	know that the feedstock is ultimately a feedstock derived from fossil fuels and is not a bio-based feedstock or derived from wastes.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CH

(7.32) Disclose details on your organization's consumption of feedstocks for steel production activities.

Question details	
Change from last year	Modified question
Rationale	The steel sector is largely dependent on carbon-based feedstocks, which act as chemical agents in the reduction of iron ore. It is also common for steel companies to consume coal as a feedstock in the production of coke. These feedstocks are consumed in large quantities and represent a significant depletion of natural resources. Furthermore, they are the source of by-product gasses, which are subsequently combusted, releasing greenhouse gas emissions. As such, data users are interested in the specification of carbon and energy content of these feedstocks, their consumption, and the consumption of non-carbon based reducing agents.
Response options	Please complete the following table.

1	2	3	4	5	6	7	8
Feedstocks	Total consumption	Total consumption unit	Dry or wet basis?	Inherent carbon dioxide emission factor of feedstock, metric tons CO_2 per consumption unit	Heating value of feedstock, MWh per consumption unit	Heating value	Comment

Select from: • Coal • Coking coal • Blast furnace coal • Coke • Fuel oil • Natural gas • Coke oven gas • Blast furnace gas • Renewable Hydrogen • Hydrogen derived from non-renewable sources, fitted with carbon capture and storage • Other non-renewable hydrogen • Charcoal • Other biomass • Liquid biofuel • Biogas • Biomass waste • Non-biomass waste • Other, please specify	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Select from: • metric tons • thousand metric tons • thousand pounds • barrels • thousand barrels • gallons • thousand gallons • million gallons • liters • thousand liters • million liters • cubic feet • thousand cubic feet • million cubic feet • cubic meters • thousand cubic meters	• Dry basis • Wet basis	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Select from: • LHV • HHV • Unable to confirm heating value	Text field [maximum 2,400 characters]

[Add Row]

Requested content	General • Figures you provide should be for the reporting year only (as defined by your answer to 1.4). • All fuel feedstocks (feedstocks that can also be fuels) consumed inside the organizational/sector boundary should be included, regardless of whether the feedstock was purchased or produced by the organization. For example, coking coal consumed at coke ovens may have been purchased or mined by your organization. Equally, coke at the blast furnace may have been purchased or produced in coke ovens owned by your organization.

	• The sector boundary should align with the sector boundary for emissions, which is described in the guidance to question 7.19. • Because feedstocks specified are fuel feedstocks, this excludes non-fuel feedstocks such as limestone, sinter, iron ore, etc. All fuels that serve as a reducing agent, or have another function other than just heat provision, are considered feedstocks and should be included. • If your organization has consumed a feedstock listed but only for heat provision, e.g. coke for process heat at the sinter plant, then it should not be included. • Guidance on unit conversion is available in the following Technical Note: "Conversion of fuel data to MWh". Feedstocks (column 1) • Renewably derived hydrogen is generated from energy sources that are inexhaustible such as wind, solar, hydropower, geothermal, biomass and marine (tidal and wave energy). This option should not be selected if the hydrogen is derived from fossil fuels. Dry or wet basis? (column 4) • Select whether the feedstock is measured on a wet basis (moisture content measured as the amount of water per unit mass of the total material, including water) or dry basis (measured as the amount of water per unit mass of the dry material, excluding water). Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit (column 5) • You should respond by entering the inherent carbon dioxide emission factor by metric tons CO_2 per consumption unit (selected in column 3). • Inherent carbon dioxide emission factor is strictly defined as the feedstock's carbon content (by mass), multiplied by the molecular ratio between carbon dioxide and carbon ($CO_2 = C \times 44 / 12$). If carbon content data is unavailable, then you can use the feedstock's CO_2 emission factor assuming 100% combustion (oxidation factor = 1). Heating value of feedstock, MWh per consumption unit (column 6) • You should respond by entering the heating value of the feedstock in MWh per consumption unit (selected in column 3). Heating value (column 7) • You should respond by selecting either LHV or HHV. This relates to the value you provided in column 6. • Higher heating value (HHV) is also known as gross calorific value (GCV), and lower heating value (LHV) is also known as net calorific value (NCV). Typically, LHV/HHV ratio is 0.95 for solid and liquid hydrocarbon fuels, such as coal and oil, and 0.9 for gaseous hydrocarbon fuels, such as natural gas. Comment (column 8) (optional) • The purpose of requesting the inherent carbon dioxide emission factor of your feedstock is to provide transparency on the level of carbon feedstocks consumed by your organization in the steel sector. This can be useful for quality checking your emissions disclosure in question 7.19. As such, you are encouraged to provide comments on the nature of the feedstock's use and approximate level of oxidation in this column.
Explanation of terms	• Feedstocks: Feedstocks are starting materials, ranging from fossil fuels to biomass-based resources. These materials are fed into a process, and converted into other commodities or resources, which are either used directly or further transformed. For example, in the steel industry, coking coal is converted to coke, which is used in the

	steel production. In the petrochemical industry, gaseous feedstocks (ethane, propane, or butane) are used to produce high value chemicals.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	ST

Electricity Transmission and Distribution

(7.33) Does your electric utility organization have a transmission and distribution business?

Question details	
Change from last year	Modified guidance
Rationale	Transmission and distribution companies play an important role in enabling the transition to low-carbon electricity systems. Transmission and distribution systems also have significant energy losses. Therefore, data users are interested in what transmission and distribution companies are doing to reduce their own carbon footprint (energy losses) and the carbon footprint of the grids they operate (grid decarbonization).
Response options	Select one of the following options: • Yes • No

Requested content	
Explanation of terms	• Transmission: The movement or transfer of electricity over an interconnected group of lines and associated equipment between points of supply and points at which it is transformed for delivery to consumers or is delivered to other electric systems. Transmission (high voltage) relates to transmitting electric power from generation plants in high-voltage (e.g. 230 kilovolts [kV] up to 765 kV) to distribution substations. The transmission system is configured as a network, meaning that power has multiple paths to follow from the generator to the distribution substation. • Distribution: The delivery of electricity to retail customers (including homes, businesses, etc.). Distribution (low voltage) is the lower-voltage electrical distribution of power from distribution substations to final customer, usually below 35kV. In contrast to the transmission system, the distribution system usually is radial, meaning that there is only one path from the distribution substation to a given consumer.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	EU

(7.33.1) Disclose the following information about your transmission and distribution business.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.33.
Change from last year	Minor change
Rationale	A set of quantitative disclosures is put forward that allows electric utility organizations with a transmission and distribution business(s) to characterize their grid operations. These companies often operate within strict regulatory and contractual clauses, and therefore are provided with the opportunity to provide a narrative description to explain such instances.
Response options	Please complete the following table.

1	2	3	4	5
Country/area/region	Voltage level	Annual load (GWh)	Annual energy losses (% of annual load)	Scope where emissions from energy losses are accounted for
Select from: Country/area/region drop-down list	Select from: • Transmission (high voltage) • Distribution (low voltage)	Numerical field [enter a number from 0 - 999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-100 using a maximum of 2 decimal places]	Select from: • Scope 1 • Scope 2 (location-based) • Scope 2 (market-based)

6	7	8	9	10
Emissions from energy losses (metric tons CO2e)	Length of network (km)	Number of connections	Area covered (km^2)	Comment
Numerical field [enter a number from 0-99,999,999,999 using a maximum of 3 decimal places]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • If applicable, you should disclose the transmission and/or distribution related information from both your subsidiaries who are solely transmission and/or distribution and subsidiaries who provide both generation and transmission and/or distribution.

	Country/area/region (column 1) • Select from the drop-down list the country/area/region in which your organization has transmission and distribution (T&D) activities. Annual energy losses (% of annual load) (column 4) • This figure provides a measure of the power dissipated in the form of useless heat through the grid. Scope where emissions from energy losses are accounted for (column 5) • The "Scope 2 (market-based)" dropdown only appears if you select if "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3 • In markets where the utility owns the generation assets and the T&D infrastructure, the utility would account for T&D losses in Scope 1. If the utility is a separate entity from power generating assets, the emissions from T&D losses would fall under Scope 2. Emissions from energy losses (metric tons CO2e) (column 6) • Negative numbers are not allowed as reporting needs to be gross, not net figures. • Emission figures should be for the reporting year only. • For further information, please see GHG Protocol Scope 2 Guidance. Length of network (km) (column 7) • Length of network (km) is the total length of the routes, not cables, between different points of the network in kilometers. Number of connections (column 8) • This is the number of connections in the network, either at supply side or delivery point and interconnections. Area covered (km^2) (column 9) • This is the area serviced by the transmission or distribution network, expressed in kilometer squared.
Explanation of terms	• Annual load (also known as "System load"): the annual electricity delivered to the grid system by generating units expressed in GWh. • Transmission and distribution losses (also known as "Technical losses"): the difference between system load and energy delivered to distribution grids/consumer, expressed as a percentage per energy delivered to the grid.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	EU

Sector-specific efficiency metrics

(7.34) Does your organization measure the efficiency of any of its products or services?

Question details	
Change from last year	No change
Rationale	Energy efficiency will be key to achieving the International Energy Agency's below 2-degree scenario as global energy demand grows. Since this sector produces the technology that will allow end-markets to achieve their own efficiency goals, data users are interested in whether companies are measuring and improving the efficiency of their products and services.
Response options	Please complete the following table:

1	2
Measurement of product/service efficiency	Comment
Select from: • Yes • No, but we plan to start doing so within the next two years • No, and we do not plan to start doing so within the next two years	Text field [maximum 2,400 characters]

[Fixed row]

Requested content	General • Select "Yes" if you measure the efficiency of any of your products of services. You will then be requested to provide further details in the following question. Comment (column 2) (optional) • If you do not measure the efficiency of any of your products or services, you may wish to explain why not and/or explain your plan to start doing so in the future.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CG

(7.34.1) Provide details of the metrics used to measure the efficiency of your organization's products or services.

Question details

Question dependencies	This question only appears if you select "Yes" in response to 7.34.
Change from last year	No change
Rationale	In line with the TCFD recommendations, the efficiency levels achieved by organizations in this sector provide investors with an indication of the vulnerability of the product portfolio to transition risk and thus the earning capacity of the organization. This question provides data users with information on the metrics companies are using to measure the efficiency of their products and services, including the proportion of the total product range measured.
Response options	Please complete the following table.

1	2	3	4	5	6	7
Category of product or service	Product or service (optional)	% of revenue from this product or service in the reporting year	Efficiency figure in the reporting year	Metric numerator	Metric denominator	Comment
Select from: • Agriculture, construction & mining machinery • Batteries (including fuel cells) • Heating & cooling systems • Industrial machinery • Power generation equipment • Power transmission, transformation and distribution equipment • Power tools • Solar energy equipment • Stationary generators • Other, please specify	Text field [maximum 500 characters]	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Select from: • GJ • Btu • watt-hour • megawatt hour (MWh) • tCO2 • tCO2e • liter • metric ton • kg • amp-hour • % • Other, please specify	Select from: • kilometer • square meter • square foot • watt-hour • megawatt hour (MWh) • metric ton of product • unit hour worked • unit of production • unit of service provided • unit revenue • USD($) value-added • Not applicable • Other, please specify	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • Metrics reported should be for the products and/or services sold in the reporting period.

	Category of product or service (column 1) • Select the option from the drop-down list that best describes the type of product or service you would like to provide data for. • Note that these are broad categories only – you may optionally provide a more specific description of the product or service in column 2. Product or service (optional) (column 2) • If you wish to do so, state the product or service you would like to provide data for. % of revenue from this product or service in the reporting year (column 3) • Enter the proportion of your total revenue from capital goods sector activities that the measured product or service generated in the reporting year. Do not include products and/or services outside of the capital goods sector boundary in this calculation. • E.g. If you are providing efficiency data for a product which generated 10% of your total revenue from all capital goods-related products and services in the reporting year, enter 10 here. • Note that entering a value of 100 indicates that the measured product or service generated 100% your revenue from products or services in the reporting year. Efficiency figure in the reporting year (column 4) • Enter the numerical value used to quantify the efficiency metric for the product or service, relating to the metric numerator and denominator. • E.g. If you measure the efficiency of the cooling equipment that you produce as a ratio of total cooling output (e.g. in Btu) to the total electric energy input (e.g. in watt-hours), and the efficiency figure in the reporting year is 15 Btu/Wh, enter 15 here. Metric numerator (column 5) • Select the relevant numerator for your efficiency metric. • E.g. In the example provided above, the numerator was Btu. Metric denominator (column 6) • Select the relevant denominator for your efficiency metric. • E.g. In the example provided above, the denominator was watt-hour. Comment (column 7) (optional) • You can use this column to provide any additional explanation necessary to capture the full complexity of the efficiency metric stated. • If you used any relevant existing standards and/or methodologies, you may wish to mention them here.
Additional information	Note on capital goods sector activities When calculating revenue in this question, CDP encourages you to identify and remove specific revenue streams that are not necessarily a part of the sector. CDP broadly defines the capital goods sector as organizations that produce products or services relating to agricultural,

	construction & mining machinery, batteries, electrical equipment, industrial machinery, solar energy equipment, or other renewable energy equipment.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CG

(7.35) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Question details	
Change from last year	No change
Rationale	Efficiency metrics are the primary way through which transport sector companies can measure the energy efficiency of their vehicles across modes of transportation. Various primary metrics exist as standards for different modes of transport, and sector experts and relevant data users will be able to use this information to compare the company's overall efficiency.
Response options	Please complete the following table.

1	2	3	4
Activity	Metric figure	Metric numerator	Metric denominator
Select from: Drop down options determined by transport modes selected in 1.21	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Select from: LDV • gCO_2 • gCO_2e • tCO_2 • tCO_2e • MWh • Other, please specify HDV • gCO_2 • gCO_2e • tCO_2 • tCO_2e • MWh • Other, please specify Rail • gCO_2 • gCO_2e • tCO_2	Select from: LDV • Production: Vehicle • Use phase: Vehicle.km • Use phase: Vehicle.mile • Life cycle (please explain assumptions) • Other, please specify HDV • Production: Vehicle • Use phase: Vehicle.km • Use phase: Vehicle.mile • Life cycle (please explain assumptions) • Other, please specify Rail • Production: Vehicle (locomotive) • Production: Vehicle (train car)

		• tCO_2e • MWh • Other, please specify Marine • gCO_2 • gCO_2e • tCO_2 • tCO_2e • MWh • Other, please specify Aviation • gCO_2 • gCO_2e • tCO_2 • tCO_2e • MWh • Other, please specify	• Production: Other, please specify • Use phase: please specify • Life cycle, please specify • Financial: Revenue-ton.km • Financial: Revenue-ton.miles • Other, please specify Marine • Production: Specific vessel unit, please specify • Use phase, please specify • Life cycle, please specify • Financial: Revenue-ton.km • Financial: Revenue-ton.miles • Financial: Revenue-ton.nautical miles • Other, please specify Aviation • Production: Aircraft • Production: Other, please specify • Use phase, please specify • Life cycle, please specify • Financial: Revenue-ton.km • Financial: Revenue-ton.miles • Financial: Revenue per ASK (RASK) • Financial: Revenue per ASM (RASM) • Other, please specify

5	6	7	8
Metric numerator: Unit total	Metric denominator: Unit total	% change from last year	Please explain
Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Percentage field [enter a percentage from -999 - 999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • Disclose any metrics outside of the primary intensity metrics in 7.50 (tCO_2e per unit of transportation (passenger or ton) per unit of distance (km or mile). CDP recognizes that

many other metrics are standardized across the transportation sector, such as for example measuring CO_2 emissions per vehicle, per unit of distance (tCO_2e/vehicle.km). Responders are invited to disclose all those metrics in this table question, by adding a row for every reported metric.

- Metrics reported, using the associated metric numerators and denominators (presented in columns 3 and 4, respectively), should be for the current reporting period (as defined by your answer to 1.4).
- When reporting "% change from last year" (column 7), the timeline used should be the 12-month period directly prior to the reporting period (as defined by your answer to 1.4), even if it does not completely overlap with the period previously reported to CDP.
- Aside from in "% change from last year field" (column 7), negative numbers should not be inserted.

Activity (column 1)

- Select the activity that you would like to provide data for.
- Activity modes presented in drop-down options are determined by transport modes selected in response to 1.217.

Metric figure (column 2)

- Enter the numerical value used to quantify the efficiency metric appropriate for your organization's products and/or services pertinent to the metric numerator (column 3) and metric denominator (column 4) within your transport activities listed in column 1.
- Metrics reported for each of the transport activities that your organization engages in can be in relation to production, vehicle use phase, life cycle, financial and any other metric denominator(s) deemed relevant for the transport mode(s) that your organization operate(s) in. Further explanation of these metrics can be provided in columns 3, 4 and 8 (Metric numerator, Metric denominator and Please explain, respectively).

Metric numerator (column 3)

- Select relevant metric numerator.
- If you select "Other, please specify", provide a label for the Metric numerator.

Metric denominator (column 4)

- Select the relevant metric denominator, in line with the boundary/method used to calculate the metric. The metrics provided can pertain to production, vehicle use phase, the whole life cycle, or it can be based on financial indicators, which is reflected in the options provided.
- You may choose to provide your own metric using the "Other, please specify" drop-down. If you select "Other, please specify", provide a label for the Metric denominator.
- Vehicles are defined as per the definitions put forward in the 'Explanation of terms' for question 1.21.
- When reporting any vehicle life cycle metric denominators, please ensure to explain all life cycle assumptions in column 8 (Please explain).
- Please ensure that the combination of numerator and denominator selected for each activity provide a coherent metric.
- For LDV and HDV manufacturers:
    - The provided metric options are for your fleet average vehicles sold. If you would like to disaggregate your response by e.g. vehicle classes, select "Other, please

specify", provide a label for your metric and provide more details in the column 8 (Please explain).

- For Rail equipment manufacturers:
    - Production: Other, please specify. Select this option to report efficiency metrics of production on a per vehicle basis for any vehicles other than locomotives and train cars. The vehicle unit needs to be specified in the text box provided. Provide a more detailed explanation of this metric in column 8 (Please explain)
    - Use phase: please specify. Select this option to report efficiency metrics of the use phase of the vehicle sold. Input a label for your metric in the text box provided (e.g. locomotiveClass68.mile for reporting vehicle.mile for locomotive Class 68) and provide more details, including the specific vehicle type/class if relevant, in the column 8 (Please explain).
    - Life cycle, please specify. Select this option to report efficiency metrics of the vehicle sold over its life cycle. Input a label for your metric in the text box provided (e.g. vehicle.km) and provide more details, including all the assumptions and the specific vehicle class if relevant, in the column 8 (Please explain).
- For Marine equipment manufacturers:
    - Production: Specific vessel unit, please specify: select this option to report efficiency metrics on a per vessel basis. The vessel unit needs to be specified in the text box provided. If you need more than 40 characters, please use the comment box by clicking on the "speech bubble" icon. Provide a more detailed explanation of this metric in column 8 (Please explain)
    - Use phase, please specify. Select this option to report efficiency metrics of the use phase of the vessel sold. Input a label for your metric in the text box provided (e.g. trip) and provide more details, including the specific vessel type/class if relevant, in the column 8 (Please explain).
    - Life cycle, please specify. Select this option to report efficiency metrics of the vessel sold over its life cycle. Input a label for your metric in the text box provided (e.g. total lifecycle) and provide more details, including all the assumptions and the specific vehicle class if relevant, in the column 8 (Please explain).
- For Aviation equipment manufacturers:
    - Production: Aircraft. Select this option to report efficiency metrics on the average basis for all aircrafts sold. If you would like to disaggregate your response by e.g. aircraft classification, select "Production: Other, please specify", specify the aircraft classification in the text box provided and give a more detailed explanation of this metric in column 8 (Please explain)
    - Use phase, please specify. Select this option to report efficiency metrics of the use phase of the aircraft sold. Input a label for your metric in the text box provided (e.g. PAX) and provide more details, including the specific aircraft type/class if relevant, in the column 8 (Please explain).
    - Life cycle, please specify. Select this option to report efficiency metrics of the aircraft sold over its life cycle. Input a label for your metric in the text box provided (e.g. life cycle) and provide more details, including all the assumptions and the specific vehicle class if relevant, in the column 8 (Please explain).

Metric numerator: Unit total (column 5)

- Enter the value of the numerator selected in column 3, used to evaluate the metric figure presented (column 2), for the transport activity selected (column 1).

Metric denominator: Unit total (column 6)

	• Enter the numerical value of the denominator selected in column 4, used to evaluate the metric figure presented (column 2), for the transport activity selected (column 1). % change from last year (column 7) • Enter the percentage change in the efficiency metric you are reporting on (column 2), in relation to the previous year. • Leave the column blank if you do not have sufficient data to calculate the change from the previous year, or if this is the first year you have tracked this metric. • If you have experienced no change, please enter 0 (zero) in this column. Please explain (column 8) • Discuss any assumptions made to derive, or simplifications made to establish metric numerators and denominators used. • If you used any relevant existing standards and/or methodologies, please mention them and discuss their use here. • Provide any additional explanation necessary to capture the full complexity of the metric figure stated.
Explanation of terms	• Metric ton of CO_2 (tCO_2): a metric ton of carbon dioxide (CO_2) has a mass of 1000 kg, equivalent to 2204.62 lbs. The "long ton", a term generally used in Britain, is equivalent to 2,240lbs and the "short ton" is generally used in the USA and is equivalent to 2,000 lbs. • Metric tons of CO_2-equivalent (tCO_2e): a metric that allows for other Greenhouse Gases (GHGs) to be expressed in relation to CO_2 based on their Global Warming Potentials (GWPs). A metric ton is 1000 kg, equivalent to 220462 lbs. • MWh (megawatt hours): one MWh is the equivalent of 1×10^6 Watts of energy being used continuously for one hour, equivalent to the consumption of 3.6 GJ (3.6×10^9 joules). Therefore, to convert from gigajoules (GJ) to MWh, you should multiply your value by 0.277778. • Vehicle-kilometer (vehicle.km or v.km): a unit of measurement for traffic flow which represents the number of vehicles on a given road or traffic network, over a distance of one kilometer (loaded or empty). • Vehicle-mile (vehicle.mile or v.mile) a unit of measurement for traffic flow which represents the number of vehicles on a given road or traffic network, over a distance of one mile (loaded or empty). • Vehicle (locomotive): this allows rail original equipment manufacturers to report metrics on a per locomotive, i.e. powered railway vehicle basis. • Vehicle (train car): this allows rail original equipment manufacturers to report metrics on a per train car basis (e.g. train wagon, railroad, railcar, railway wagon or railway carriage). • Aircraft: this allows airline original equipment manufacturers to report metrics on a per aircraft basis. • Revenue ton-kilometer (revenue-ton.km): a metric ton of revenue load transported over one kilometer. • Revenue ton-mile (revenue-ton.mile): a metric ton of revenue load transported over one mile. • Revenue ton-nautical mile (revenue-ton.nautical mile): a metric ton of revenue load transported over one nautical mile. • Revenue per Available Seat Kilometer (RASK): This metric evaluates operating income by the ASK (Available Seat Kilometer). ASK is the number of seats available multiplied by the distance flown in kilometers.

	• Revenue per Available Seat Mile (RASM): This metric evaluates operating income by the ASM (Available Seat Mile). ASM is the number of seats available multiplied by the distance flown in miles.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	TO

(7.36) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Question details	
Change from last year	No change
Rationale	Efficiency metrics are the primary way through which transport sector companies can measure the energy efficiency of their vehicles across modes of transportation. Various primary metrics exist as standards for different modes of transport, and sector experts and relevant data users will be able to use this information to compare the company's overall efficiency.
Response options	Please complete the following table.

1	2	3	4
Activity	Metric figure	Metric numerator	Metric denominator
Select from: Drop down options determined by transport modes selected in 1.21	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Select from: LDV • Liters of fuel • MWh • Other, please specify HDV • Liters of fuel • MWh • Other, please specify Rail • Liters of fuel • MWh • Other, please specify Marine • Liters of fuel • MWh • Other, please specify Aviation • Liters of fuel	Select from: LDV • v.km • v.mile • t.km • t.mile • p.km • p.mile • m2 vehicle footprint • kg vehicle mass • Other, please specify HDV • v.km • v.mile • t.km • t.mile • m3.km • m3.mile • p.km • p.mile

		• MWh • Other, please specify	• m2 vehicle footprint • kg vehicle mass • Other, please specify Rail • v.km • v.mile • t.km • t.mile • m3.km • m3.mile • p.km • p.mile • kg vehicle mass.km • kg vehicle mass.mile • Revenue-ton.km • Revenue-ton.mile • Other, please specify Marine • v.km • v.mile • v.nautical mile • t.km • t.mile • t.nautical mile • m3.km • m3.mile • m3.nautical mile • p.km • p.mile • p.nautical mile • 20ft.km • 20ft.mile • 20ft.nautical mile • 40ft.km • 40ft.mile • 40ft.nautical.mile • Revenue-ton.km • Revenue-ton mile • Revenue-ton nautical mile • Other, please specify Aviation • v.km • v.mile • t.km • t.mile • p.km • p.mile • Available seat.km • Available seat.mile • Revenue-ton.km • Revenue-ton.mile • Revenue per ASK (RASK) • Revenue per ASM (RASM) • Other, please specify

5	6	7	8
Metric numerator: Unit total	Metric denominator: Unit total	% change from last year	Please explain
Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Percentage field [enter a percentage from -999 – 999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • Metrics reported, using the associated metric numerators and denominators (presented in columns 3 and 4, respectively), should be for the current reporting period (as defined by your answer to 1.4). • When reporting "% change from last year" (column 7), the timeline used should be the 12-month period directly prior to the reporting period (as defined by your answer to 1.4), even if it does not completely overlap with the period previously reported to CDP. • Aside from in "% change from last year field" (column 7), negative numbers should not be inserted. Activity (column 1) • Select the activity that you would like to provide data for. • Activity modes presented in drop-down options are determined by transport modes selected in response to 1.21. Metric figure (column 2) • Enter the numerical value used to quantify the efficiency metric appropriate for your organization's products and/or services pertinent to the metric numerator (column 3) and metric denominator (column 4) within your transport activities selected in column 1. • Metrics reported for each of the transport activities that your organization engages and/or operates in can be in relation to fuel, distance, financial and any other metric denominator(s) deemed relevant for the transport mode(s) that your organization operate(s) in. Further explanation of these metrics can be provided in columns 3, 4 and 8 (Metric numerator, Metric denominator and Please explain, respectively). Metric numerator (column 3) • Select relevant metric numerator. If you select "Other, please specify", provide a label for the Metric numerator. Metric denominator (column 4) • Select relevant metric denominator. • If you select "Other, please specify", provide a label for the Metric denominator.

	• If reporting marine freight in container size-distance equivalents (e.g. 20ft.km), please explain your payload assumptions in column 8 (Please explain). Metric numerator: Unit total (column 5) • Please enter the numerical value of the numerator selected in column 3, used to evaluate the metric figure presented (column 2), for the transport activity selected (column 1). Metric denominator: Unit total (column 6) • Enter the numerical value of the denominator selected in column 4, used to evaluate the metric figure presented (column 2), for the transport activity selected (column 1). % change from last year (column 7) • Enter the percentage change in the efficiency metric you are reporting on (column 2), in relation to the previous year. • Leave the column blank if you do not have sufficient data to calculate the change from the previous year, or if this is the first year you have tracked this metric. • If you have experienced no change, please enter 0 (zero) in this column. Please explain (column 8) • Discuss any assumptions made to derive, or simplifications made to establish metric numerators and denominators used. • If you used any relevant existing standards and/or methodologies, please mention them and discuss their use here. • Provide any additional explanation necessary to capture the full complexity of the efficiency metric stated.
Requested content – [sector] only (if applicable)	Note for marine sector • You are encouraged to report your EEDI attainment ratio, which serves as an indicator of the overall efficiency of your fleet. EEDI attainment ratio is the proportion of ships in your fleet that achieved minimum EEDI. • To report this metric, select "Other, please specify" in both column 3 (Metric numerator) and column 4 (Metric denominator) and using the text field provided enter “Number of ships achieved minimum EEDI” for the numerator, and “Total number of ships in the fleet” for denominator. Enter the respective numerical values in columns 5 (Metric numerator: Unit total) and column 6 (Metric denominator: Unit total).
Explanation of terms	• MWh (megawatt hours): one MWh is the equivalent of 1 x 10^6 Watts of energy being used continuously for one hour, equivalent to the consumption of 3.6 GJ (3.6 x 10^9 joules). Therefore, to convert from gigajoules (GJ) to MWh, you should multiply your value by 0.277778. • Vehicle-kilometer (vehicle.km or v.km): a unit of measurement for traffic flow which represents the number of vehicles on a given road or traffic network, over a distance of one kilometer (loaded or empty). • Vehicle-mile (vehicle.mile or v.mile) a unit of measurement for traffic flow which represents the number of vehicles on a given road or traffic network, over a distance of one mile (loaded or empty).

	• Vessel-nautical mile (v.nautical mile): a unit of measurement for traffic flow which represents the number of vessels on a given route or traffic network, over a distance of one nautical mile (loaded or empty). • Ton-kilometer (t.km): a unit of measurement which represents the transportation of one metric ton of goods (including packaging and tare weights of intermodal transport units), by a given transport mode over a distance of one kilometer. • Ton-mile (t.mile): a unit of measurement which represents the transportation of one metric ton of goods (including packaging and tare weights of intermodal transport units), by a given transport mode over a distance of one mile. • Ton-nautical mile (t.nautical mile): a unit of measurement which represents the transportation of one metric ton of goods (including packaging and tare weights of intermodal transport units), by a given transport mode over a distance of one nautical mile. • Cubic meter-kilometer (m^3.km): the transportation of one cubic meter of load, cargo or freight by a given transport mode over a distance of one kilometer. • Cubic meter-mile (m^3.mile): the transportation of one cubic meter of load, cargo or freight by a given transport mode over a distance of one mile. • Cubic meter-nautical mile (m^3.nautical mile): the transportation of one cubic meter of load, cargo or freight by a given transport mode over a distance of one nautical mile. • Passenger-kilometer (p.km): a unit of measurement which represents the transportation of one passenger by a defined mode of transport over a distance of one kilometer. • Passenger-mile (p.mile): a unit of measurement which represents the transportation of one passenger by a defined mode of transport over a distance of one mile. • Passenger-nautical mile (p.nautical mile): a unit of measurement which represents the transportation of one passenger by a defined mode of transport over a distance of one nautical mile. • m^2 vehicle footprint: the product surface area of the average track width (distance between the centerline of the tires) and the wheelbase (the distance between the centers of the axles); quantified in m^2. • Kilogram vehicle mass (kg vehicle mass): the transportation of one kilogram of vehicle mass by a defined mode of transport. • Kilogram vehicle mass-kilometer (kg vehicle mass.km): the transportation of one kilogram of vehicle mass by a defined mode of transport over the distance of one kilometer. • Kilogram vehicle mass-mile (kg vehicle mass.mile): the transportation of one kilogram of vehicle mass by a defined mode of transport over the distance of one mile. • 20 foot container-kilometer (20ft.km): the transportation of a 20ft shipping container by a defined mode of transport, over a distance of one kilometer. • 20 foot container-mile (20ft.mile): the transportation of a 20ft shipping container by a defined mode of transport, over a distance of one mile. • 20 foot container-nautical mile (20ft.nautical mile): the transportation of a 20ft shipping container by a defined mode of transport, over a distance of one nautical mile. • 40 foot container-kilometer (40ft.km): the transportation of a 40ft shipping container by a defined mode of transport, over a distance of one kilometer. • 40 foot container-mile (40ft.mile): the transportation of a 40ft shipping container by a defined mode of transport, over a distance of one mile. • 40 foot container-nautical mile (40ft.nautical mile): the transportation of a 40ft shipping container by a defined mode of transport, over a distance of one nautical mile. • Energy Efficiency Design Index (EEDI): as defined by the International Maritime Organization (IMO), EEDI represents the amount of CO_2 generated by a ship while doing one ton-mile of transport work.

	• Energy Efficiency Design Index (EEDI) Attainment Ratio: a fleet-wide metric derived by dividing the total number of ships that achieved minimum EEDI by the total number of ships in the fleet. • Revenue ton-kilometer (revenue-ton.km): a metric ton of revenue load transported over one kilometer. • Revenue ton-mile (revenue-ton.mile): a metric ton of revenue load transported over one mile. • Revenue ton-nautical mile (revenue-ton.nautical mile): a metric ton of revenue load transported over one nautical mile. • Available Seat Kilometer (ASK): the number of seats available multiplied by the distance flown in kilometers. • Available Seat Mile (ASM): the number of seats available multiplied by the distance flown in miles. • Revenue per Available Seat Kilometer (RASK): This metric evaluates operating income by the ASK (Available Seat Kilometer). ASK is the number of seats available multiplied by the distance flown in kilometers. • Revenue per Available Seat Mile (RASM): This metric evaluates operating income by the ASM (Available Seat Mile). ASM is the number of seats available multiplied by the distance flown in miles.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	TS

Production Data

(7.37) Disclose coal reserves and production by coal type attributable to your organization in the reporting year.

Question details	
Change from last year	No change
Rationale	Fossil fuels are the largest source of global emissions and coal is the most carbon intensive fossil fuel. It is therefore important to have transparency about the production and reserves of coal attributable to organizations. The split between thermal coal and metallurgical coal is also important. Thermal coal has higher transition risk because consumers can substitute it with other sources of energy.
Response options	Please complete the following table.

1	2	3	4	5	6	7	8
Coal type	Proven reserves	Probable reserves	Production (million metric tons)	Energy content of production	Heating value	Emission factor of production (metric tons	Comment

	(million metric tons)	(million metric tons)		(GJ per metric ton)		CO2e per metric ton)	
Thermal coal	Numerical field [enter a number from 0-999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 1-35 using a maximum of 2 decimal places]	Select from: • LHV • HHV • Unable to confirm heating value	Numerical field [enter a number from 0-9,999 using a maximum of 4 decimal places]	Text field [maximum 2,400 characters]
Metallurgical coal							
Other coal							
Total coal							

[Fixed row]

Requested content	Coal type (column 1) • This column specifies the coal type for which you are disclosing reserves, production, and other information. • Thermal coal is coal that is combusted for energy purposes, e.g. thermal power generation. • Metallurgical coal includes coking coals and blast furnace coals (PCI), or any other coal used in the steel industry. Proven reserves (million metric tons) (column 2) • Enter your organization's proven reserves of the coal grade you are reporting. • You should apply the same methodology for estimating reserves as used in your annual reporting. You will be asked to explain which listing requirements or other methodologies you have used to provide reserves data in 7.44. • If your raw data is not in metric tons, then you should convert it. For example, from short tons, multiply by 0.907185 to calculate metric tons. Common conversion factors are included in the Technical Note "Units of Measure Conversions". Probable reserves (million metric tons) (column 3) • Enter your organization's probable reserves of the coal grade you are reporting. • You should apply the same methodology for estimating reserves as used in annual reporting. • If your raw data is not in metric tons, then you should convert it. For example, from short tons, multiply by 0.907185 to calculate metric tons. Common conversion factors are included in the Technical Note "Units of Measure Conversions". Production (million metric tons) (column 4) • Enter your organization's production of the coal type you are reporting.

	• If your raw data is not in metric tons, then you should convert it. For example, from short tons, multiply by 0.907185 to calculate metric tons. Common conversion factors are included in the Technical Note "Units of Measure Conversions".
	
	Energy content of production (GJ per metric ton) (column 5)
	
	• Enter the energy content of the coal type you are reporting in Giga-Joules per metric ton. The following are common conversions:
	  ○ From million Btu, multiply by 1.05506 to calculate GJ.
	  ○ From million kcal, multiply by 4.184 to calculate GJ.
	  ○ From Btu per lb., multiply by 0.002326 to calculate GJ per metric ton.
	  ○ From kcal per kg, multiply by 0.004187 to calculate GJ per metric ton.
	  ○ From kJ per kg, multiply by 0.001 to calculate GJ per metric ton.
	• For coals, the LHV typically falls inside the range 10-30 GJ per metric ton.
	
	Heating value (column 6)
	
	• You should specify the heating value relevant to the figure you reported in Energy content of production (GJ per metric ton) (column 5).
	• Higher heating value (HHV) is also known as gross calorific value (GCV), and lower heating value (LHV) is also known as net calorific value (NCV). Typically, LHV/HHV ratio is 0.95 for coal.
	
	Emission factor of production (kg CO2e per metric ton) (column 7)
	
	• Enter the emissions factor of the coal type you are reporting.
	• In the absence of relevant data, assume 100% combustion (oxidation factor = 1)
	
	Comment (column 8) (optional)
	
	• Use the "Comment" column to define and explain your reported reserves and production figure(s).
	• If you provide data in the "Other coal" row then use this column to provide more information on the coal type(s) you are reporting.
	• If you have applied an oxidation factor of less than 1, then you can state the factor used here.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CO

(7.37.1) Disclose coal resources by coal type attributable to your organization in the reporting year.

Question details	
Change from last year	No change

Rationale	The transition to a low-carbon economy may affect the value of resources or long-lived assets. Providing insight into potential future emissions can help to inform investors about the potential impacts of regulatory measures and demand changes on earning capacity. The following questions enable investors to understand an organizations exposure to coal resources.
Response options	Please complete the following table.

1	2	3	4	5	6
Coal type	Measured resources (million metric tons)	Indicated resources (million metric tons)	Inferred resources (million metric tons)	Total resources (million metric tons)	Comment
Thermal coal	Numerical field [enter a number from 0-9999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-9999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-99999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-99999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]
Metallurgical coal					
Other coal					
Total coal					

[Fixed row]

Requested content	General • If your raw data is not in metric tons, then you should convert it. For example, from short tons, multiply by 0.907185 to calculate metric tons. Measured resources (million metric tons) (column 2) • Enter your organization's measured resources of the coal grade you are reporting. • A measured resource represents the highest level of geologic knowledge and confidence in a resource. The resource characteristics are well established through detailed and reliable exploration work. Economic and technical factors can be more confidently applied. Mine and production planning can give more detailed estimates of economic viability. Indicated resources (million metric tons) (column 3) • Enter your organization's indicated resources of the coal grade you are reporting. • An indicated resource is a resource whose quantity, grade (quality), shape, size and continuity can be more confidently reported. Larger and more closely spaced samples have more reliably established the characteristics of the resource to the point where preliminary economic viability and resource extraction calculations can be made. Inferred resources (million metric tons) (column 4) • Enter your organization's inferred resources of the coal grade you are reporting.

	• An inferred resource is one that is based on limited sampling and is based on reasonably assumed, but limited information. Samples might include those from outcrops, trenches, pits or drill holes. Previous geological maps may allow for reasonable assumptions about the size and scope of the resource. Total resources (million metric tons) (column 5) • Enter your organization's total resources of the coal grade you are reporting. • This is the total amount of coal that may be present in a deposit or coalfield. This does not take into account the feasibility of mining the coal economically. Not all resources are recoverable using current technology. Comment (column 6) (optional) • Use the "Comment" column to define and explain your reported resource figure(s).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CO

(7.38) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

Question details	
Question dependencies	This question only appears if you select "Upstream" in response to 1.19.
Change from last year	No change
Rationale	Investors and other data users are interested in information relating to the production of different hydrocarbon categories due to the differing environmental impacts associated with each.
Response options	Please complete the following table.

1	2	3
Hydrocarbon category	In-year net production	Comment
Crude oil and condensate, million barrels	Numerical field [enter a number from 0-999,999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]
Natural gas liquids, million barrels		
Oil sands, million barrels (includes bitumen and synthetic crude)		

Natural gas, billion cubic feet		

[Fixed row]

Requested content	In-year net production (column 2) • Enter your in-year net production for each applicable hydrocarbon category. • In-year net production is the lifting of oil and gas to the surface and gathering, treating, field processing (as in the case of processing gas to extract liquid hydrocarbons,) and field storage. The production function shall normally be regarded as terminating at the outlet valve on the lease or field production storage tank. If unusual physical or operational circumstances exist, it may be more appropriate to regard the production function as terminating at the first point at which oil, gas, or gas liquids are delivered to a main pipeline, a common carrier, a refinery, or a marine terminal. • Please note that if you are reporting crude oil and condensate, natural liquids or oil sands, to report these in units of million barrels. • If you are reporting natural gas, please do so in units of billion cubic feet. Comment (column 3) (optional) • Use the "Comment" column to define and explain your hydrocarbon accounting and reported production figure(s), especially if your organizational boundary for emissions accounting and hydrocarbon accounting differ.
Additional information	Explanations of the hydrocarbon categories listed are available in the following Technical Note: "Fuel Definitions".

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.38.1) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries/areas, please explain this.

Question details	
Question dependencies	This question only appears if you select "Upstream" in response to 1.19.
Change from last year	No change
Rationale	This question identifies any limitations on the comparability of data that may be due to different methodologies being used.
Response options	This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General • There are a variety of listing requirements or other methodologies available which you may use to aid in providing reserves data. • Please give the name of listing requirements or other methodologies or give a description of an in-house methodology or a combination of in-house and published methodologies that will be used to provide reserves data in 7.38.2 and 7.38.3. • Please provide a description of the listing requirements, methodology or methodologies that you have used to provide reserves data in 7.38.2 and 7.38.3. • CDP makes no judgments on the listing requirements or other methodologies applied by companies and it is not the intention to seek any proprietary information on how to estimate reserves. • If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries/areas, please explain this.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.38.2) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.

Question details	
Question dependencies	This question only appears if you select "Upstream" in response to 1.19.
Change from last year	No change
Rationale	The transition to a low-carbon economy may affect the value of resources or long-lived assets. Robust data on proved, probable and total resource base is valuable information for data users and investors. Providing insight into organization's reserves and resource base can help to inform investors about the potential impacts of regulatory measures and demand changes on earning capacity.
Response options	Please complete the following table.

1	2	3	4
Estimated total net proved + probable reserves (2P) (million BOE)	Estimated total net proved + probable + possible reserves (3P) (million BOE)	Estimated net total resource base (million BOE)	Comment
Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]

[Fixed row]

Requested content	General

	• Enter your 2P and 3P reserves, as well as your estimated net total resource base, in units of million barrels of oil equivalents (BOE). BOE is a unit of energy based on the approximate energy released by burning one barrel (42 US gallons or 158.9873 liters) of crude oil and is necessarily approximate as various grades of oil have different calorific values. • Please note that CDP have not asked for proved reserve numbers in this question in recognition that these figures are already rigorously reported in company reports / filings. Estimated total net proved + probable reserves (2P) (million BOE) (column 1) • This is proved reserves plus probable reserves (often referred to as P50). Probable reserves are additional reserves less certain to be recovered, and in sum with proved reserves there is a 50% chance that actual quantities produced will equal or exceed this estimate. Estimated total net proved + probable + possible reserves (3P) (million BOE) (column 2) • This is proved reserves plus probable reserves plus possible reserves. Possible reserves are less certain than probable. There is a 10% chance that actual quantities produced will equal or exceed 3P (hence the term P10). Estimated net total resource base (million BOE) (column 3) • Net total resource base includes the total for reserves, contingent resources and prospective resources.
Explanation of terms	• BOE (or boe): BOE is the symbol for barrel of oil equivalent. The BOE is a unit of energy based on the approximate energy released by burning one barrel (42 US gallons or 158.9873 liters) of crude oil and is necessarily approximate as various grades of oil have different calorific values.
Additional information	Defining reserves and resources classification: The Oil and Gas Reserves Committee (OGRC) of the Society of Petroleum Engineers (SPE) found in their Comparison of Selected Reserves and Resource Classifications and Associated Definitions report from 2005 that "Most [reserves] classifications recognize three deterministic scenarios with decreasing technical certainty: a low estimate, best estimate and high estimate. While probabilistic assessments are not commonly applied, it is generally accepted that the equivalent estimates on a cumulative probability distribution would be greater than or equal to P90, P50 and P10 respectively. For discovered and commercial volume estimates, the discrete (incremental) volumes within these bounds are generally referred to as proved, probable and possible reserves. The Russian, UNFC and USGS recognize similar certainty classes but use alternative terminology."

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.38.3) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.

Question details

Question dependencies	This question only appears if you select "Upstream" in response to 1.19.
Change from last year	No change
Rationale	A breakdown of reserves and resource base by hydrocarbon category provides insight into potential future emissions. With better insight on future project inventories, split by hydrocarbon category, data users and investors will be in a better position to assess organizations' readiness for a low-carbon transition.
Response options	Please complete the following table

1	2	3	4	5
Hydrocarbon category	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Crude oil/ condensate/natural gas liquids	Numerical field [enter a number from 0-100 using no decimals]	Numerical field [enter a number from 0-100 using no decimals]	Numerical field [enter a number from 0-100 using no decimals]	Text field [maximum 2,400 characters]
Natural gas				
Oil sands (includes bitumen and synthetic crude)				

[Fixed row]

Requested content	General • Enter the percentage that the three hydrocarbon groupings comprise of your 2P reserves, 3P reserves, and your net total resource base, respectively. • Crude oil/condensate have been grouped together with natural gas liquids to ease the reporting effort. Net proved + probable reserves (2P) (%) (column 2) • This is proved reserves plus probable reserves (often referred to as P50). Probable reserves are additional reserves less certain to be recovered, and in sum with proved reserves there is a 50% chance that actual quantities produced will equal or exceed this estimate. Net proved + probable + possible reserves (3P) (%) (column 3) • This is proved reserves plus probable reserves plus possible reserves. Possible reserves are less certain than probable. There is a 10% chance that actual quantities produced will equal or exceed 3P (hence the term P10). Net total resource base (%) (column 4) • Net total resource base includes the total for reserves, contingent resources and prospective resources

Additional information	Explanations of the hydrocarbon categories listed are available in the following Technical Note: "Fuel Definitions".

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.38.4) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.

Question details	
Question dependencies	This question only appears if you select "Upstream" in response to 1.19.
Change from last year	No change
Rationale	The transition to a low-carbon economy may affect the value of reserves or long-lived assets. A breakdown of reserves and resource base by development type provides insight into potential future emissions. This insight can help to inform investors about the potential impacts of regulatory measures and demand changes on earning capacity. Information regarding the breakdown of conventional and unconventional hydrocarbons of the total resource base is valuable to investors.
Response options	Please complete the following table.

1	2	3	4	5	6	7
Development type	In-year net production (%)	Net proved reserves (1P) (%)	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Select from: • Onshore • Shallow-water • Deepwater • Ultra-deepwater • Arctic • Oil sand/extra heavy oil • Tight/shale • LNG • Other, please specify	Numerical field [enter a number from 0-100 using no decimals]	Numerical field [enter a number from 0-100 using no decimals]	Numerical field [enter a number from 0-100 using no decimals]	Numerical field [enter a number from 0-100 using no decimals]	Numerical field [enter a number from 0-100 using no decimals]	Text field [maximum 2,400 characters]

[Add row]

Requested content	Development type (column 1)
	
	• Select the development type for which you are providing an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base.
	• You are requested to provide the split for production, reserves and resources by development types. Data users are interested in development types in more granularity than conventional and unconventional development type.
	• The onshore, shallow-water, deepwater, ultra-deepwater and arctic development type options are considered conventional. Conventional refers to conventional hydrocarbons (i.e. not extra heavy crude), conventional recovery methods (i.e. not hydraulic fracturing) or conventional reservoirs (i.e. good permeability).
	• The oil sand/extra heavy oil, tight/shale and LNG development type options are considered unconventional.
	
	Explanation of development types
	
	• Onshore: Assets onshore
	• Shallow-water: Assets in water depth < 150m.
	• Deepwater: Assets in water depth 150m – 1,500m
	• Ultra-deepwater: Assets in water depth > 1,500m
	• Arctic: Assets located inside the Arctic Circle - north of the 66 degrees north latitude.
	• Oil sand/extra heavy oil: Oil sands extraction by mining and in-situ methods and other assets that produce oil with an API gravity of less than 10°.
	• Tight/shale: Combines the following:
	  o Shale oil and gas; produced from petroleum source rock by horizontal drilling and hydraulic fracturing.
	  o Tight oil and gas; Oil and gas produced from formations of low permeability requiring hydraulic fracturing.
	  o (N.B. this does not include oil shale (kerogen) which is mined and cooked out of the source rock by pyrolysis – this should be reported in the "Other" category)
	• LNG: Upstream assets with LNG (Liquified Natural Gas) processing onsite (or where gas is exported to liquefaction facilities nearby which are associated with the upstream asset.)
	• Other, please specify: Assets that cannot be classified in any of the above categories.
	• In any cases where an asset would otherwise be in an unconventional category, the unconventional category is to be given precedence.
	• If there are assets that cannot be classified in any of the above development types then select "Other, please specify". If you select "Other, please specify," provide a label for the development type.
	
	In-year net production (%) (column 2)
	
	• Production activities, for example, include the lifting of oil and gas to the surface and gathering, treating, field processing (as in the case of processing gas to extract liquid hydrocarbons), and field storage.
	• The production function shall normally be regarded as terminating at the outlet valve on the lease or field production storage tank. If unusual physical or operational circumstances exist, it may be more appropriate to regard the production function as terminating at the first point at which oil, gas, or gas liquids are delivered to a main pipeline, a common carrier, a refinery, or a marine terminal.
	
	Net proved reserves (1P) (%) (column 3)

	• Net proved reserves have a reasonable certainty of being produced (90% confidence if probabilistic methods are used, hence the term P90). Net proved + probable reserves (2P) (%) (column 4) • This is proved reserves plus probable reserves (often referred to as P50). Probable reserves are additional reserves less certain to be recovered, and in sum with proved reserves there is a 50% chance that actual quantities produced will equal or exceed this estimate. Net proved + probable + possible reserves (3P) (%) (column 5) • This is proved reserves plus probable reserves plus possible reserves. Possible reserves are less certain than probable. There is a 10% chance that actual quantities produced will equal or exceed 3P (hence the term P10). Net total resource base (%) (column 6) • Net total resource base includes the total for reserves, contingent resources and prospective resources. Comment (column 7) (optional) • Use the "Comment" column to define and explain your hydrocarbon accounting and reported production figure(s), especially if your organizational boundary for emissions accounting and hydrocarbon accounting differ.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.39) Provide details on your organization's chemical products.

Question details	
Change from last year	No change
Rationale	Unlike most other high-impact sectors identified by CDP, the chemicals sector is heterogeneous and highly diverse in structure, and can even be characterized as a group of disparate subsectors. It is, therefore, problematic to consider sector-wide intensities. However, it is useful to identify the most important chemical production processes from an environmental or transition risk perspective and shed light on the presence and impact of them within and between organizations.
Response options	Please complete the following table.

1	2	3	4	5	6	7	8

Output product	Production (metric tons)	Capacity (metric tons)	Direct emissions intensity (metric tons CO2e per metric ton of product)	Electricity intensity (MWh per metric ton of product)	Steam intensity (MWh per metric ton of product)	Steam/ heat recovered (MWh per metric ton of product)	Comment
Select from: • High Value Chemicals (Steam cracking) • Ammonia • Aromatics extraction • Methanol • Butylene • Propylene (FCC) • Ethanol • Butadiene (C4 sep.) • Nitric acid • Adipic acid • Caprolactam • Soda ash • Carbon black • Polymers • Specialty chemicals • Other base chemicals • Other, please specify	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 4 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 4 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 4 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 4 decimal places]	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • Complete the table for each chemical output product selected in column 1. • Your production, capacity, and intensity figures should be for the reporting year only (as defined by your answer to 1.4). • If you did not have any capacity, production or intensity in the reporting year then enter 0 (zero) in the relevant field. • Negative numbers are not allowed. • You should apply the same logic to your boundary definition as provided in question 7.19. Output product (column 1) • Select the product(s) relevant to your organization's chemical-related activities. Select as many as applicable. You may also wish to select those with no production in the reporting year to confirm zero activity. • If you select "Other (Please specify)," provide a label for the output product. Production (metric tons) (column 2) • Enter the production in metric tons, for the product selected in column 1.

	Capacity (metric tons) (column 3) • Enter the production capacity in metric tons of the output product selected in column 1. Direct emissions intensity (metric tons CO_2e per metric ton of product) (column 4) • Report the direct emissions intensity, in metric tons CO_2e per metric ton of chemical product, in the reporting year, for the product selected in column 1. • Direct emissions include emissions from the use of fuel for process heating and feedstock related emissions (process emissions). Electricity intensity (MWh per metric ton of product) (column 5) • Report the electric intensity, in MWh per metric ton of chemical product, in the reporting year, for the product selected in column 1. • Because this question relates to the process-level, Scope 1 and Scope 2 terminology is not used here. No distinction needs to be made on whether the electricity is sourced from inside or outside of the organizational boundary. • Scope 2 emissions are not requested to avoid the influence of emission factors that are unrelated to the process. Steam intensity (MWh per metric ton of product) (column 6) • Report the steam intensity, in MWh per metric ton of chemical product, in the reporting year, for the product selected in column 1. Steam/heat recovered (MWh per metric ton of product) (column 7) • Report the steam/heat recovered, in MWh per metric ton of chemical product, in the reporting year, for the product selected in column 1. • Many processes in the chemicals sector are exothermic. You should enter here the MWh of steam/heat that is recovered from the process. Comment (column 8) (optional) • Use this column to provide any additional information relevant to the chemical product selected in column 1.
Explanation of terms	• High Value Chemicals (Steam cracking): High value chemicals (HVCs) produced via steam cracking include ethylene, propylene from the pyrolysis gas of steam crackers, benzene (contained amounts, excluding extracted amounts), butadiene (also contained), acetylene, and hydrogen sold (as fuel). • Steam cracking: Steam cracking is the main method of breaking down large molecules of hydrocarbons, in which a gaseous or liquid hydrocarbon is diluted with steam and then heated. The main product for steam cracking process is HVCs.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC

Questionnaire sector	Question level	CH

(7.40) Break down the coal production attributed to your organization in the reporting year by grade.

Question details	
Change from last year	No change
Rationale	Investors and data users are interested in information relating to the production of different coal grades due to the environmental impacts associated with each.
Response options	Please complete the following table.

1	2	3
Coal grade	Production (%)	Comment
Lignite	Numerical field [enter a number from 0-100 using no decimals]	Text field [maximum 2,400 characters]
Subbituminous		
Bituminous		
Anthracite		
Other		

[Fixed row]

Requested content	Coal grade (column 1) • An explanation of the coal grades listed is provided in the explanation of terms. Production (%) (column 2) • Enter the percentage that the applicable coal grade represents for your organizations total coal production in the reporting year. • The sum of all coal grade production figures provided should equal 100%. Comment (column 3) (optional) • Use the "Comment" column to define and explain your reported percentage breakdown of production.
Additional information	Explanations of the coal grades listed are available in the following Technical Note: "Fuel Definitions".

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC

Questionnaire sector	Question level	CO

(7.40.1) Break down the coal production attributed to your organization in the reporting year by mine type.

Question details	
Change from last year	No change
Rationale	There is a significantly greater energy requirement and fugitive emissions associated with coal production from underground mines. Furthermore, it is necessary to know this split in order to turn the activity emissions split into factors.
Response options	Please complete the following table.

1	2
Coal mine type	Production (%)
Underground	Numerical field [enter a number from 0-100 using no decimals]
Surface	

[Fixed row]

Requested content	General • Break down your organization's coal production for the reporting year by mine. • The sum of production should equal 100%. • Underground mining has two main methods: room-and-pillar and longwall. • Surface mining is also known as "opencast" mining.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CO

(7.41) Report your organization's steel-related consumption, production and capacity figures by steel plant.

Question details	
Change from last year	No change
Rationale	The steel sector is structured around primary and secondary production of steel. Each production route has very different implications from the perspective of raw material and energy needs, greenhouse gas emissions, and technological and market risks and opportunities. It is therefore important for organizations to provide transparency on their operational structure. The most commonly used steel furnace in the primary route is the basic oxygen furnace, while the electric arc furnace is the most common steel furnace used in secondary production. Because the relative proportion of scrap and new iron charged to each

	steel furnace can vary, it is important to know the mix of metallic feedstocks consumed by steel furnace, as well as the steel furnace production output.
Response options	Please complete the following table:

1	2	3	4	5	6
Steel plant	Metal scrap consumption (metric tons)	Blast furnace iron consumption (metric tons)	Direct reduced iron consumption (metric tons)	Crude steel production (metric tons)	Crude steel capacity (metric tons)
Basic oxygen furnace	Numerical field [enter a number from 0-999,999,999 ,999 using a maximum of two decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of two decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of two decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of two decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of two decimal places]
Electric arc furnace					
Other					
Total					

[Fixed row]

Requested content	General • Complete the table for each steel plant process listed in column 1. The steel plants presented depend on the selection made in 1.20 and in some instances only the row "Total" will appear. • Your consumption figures should be for the reporting year only (as defined by your answer to 1.4). • Negative numbers are not allowed. • If you are presented with the row "Other", use it to provide data for processes other than Basic oxygen furnace or Electric arc furnace. You can use the comment box to specify the data you are reporting. • Enter 0 (zero) if you have no activity or capacity in the relevant field. • You are not required to enter amounts of other metallic additives, i.e. for alloying purposes. Metal scrap consumption (metric tons) (column 2) • Enter the total metal scrap consumption in metric tons for the steel plant listed in column 1. Blast furnace iron consumption (metric tons) (column 3) • Enter the blast furnace iron (often described as "pig iron") consumption in metric tons for the steel plant process listed in column 1. • This is the total of "hot metal" and cold iron, purchased or produced inside the organization; total consumption of blast furnace iron should be entered.

	Direct reduced iron consumption (metric tons) (column 4) • Enter the direct reduced iron (DRI), also known as "sponge iron", consumption in metric tons for the steel plant process listed in column 1. • All forms of direct reduced iron, hot or cold, purchased or produced inside the organization, should be included. Crude steel production (metric tons) (column 5) • Enter the crude steel production in metric tons for the steel plant process listed in column 1. • Though the immediate output of the steel furnace is liquid steel, crude steel production is requested here. Crude steel is the first solid state of steel after melting and is synonymous with "raw steel". Crude steel includes numerous forms, such as slabs, billets, blooms, ingots, and direct steel castings. Crude steel capacity (metric tons) (column 6) • Enter the crude steel capacity in metric tons for the steel plant process listed in column 1.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	ST

(7.41.1) Report your organization's steel-related production outputs and capacities by product.

Question details	
Change from last year	No change
Rationale	Given the wide range of different structures and configurations of steel processes covered by organizations, it is important to provide transparency on the output of key products within the sector. This contributes significantly to the understanding of emissions and emissions intensity by allowing data users and investors to know the reach of an organization's activities and understand that organizations have various levels of coverage within the sector or within a given process route.
Response options	Please complete the following table.

1	2	3	4
Product	Production (metric tons)	Capacity (metric tons)	Comment

Select from: • Hot-rolled steel • Blast furnace iron • Direct reduced iron • Coke (including coke breeze) • Coke oven gas (for sale) • Sinter • Iron ore pellets • Lime • Metal scrap • Oxygen (disclose in million Nm3) • Tar and benzole • Ammonia • Benzene, toluene and xylene (BTX) • Iron ore • Coal • Limestone & Dolomite	Numerical field [enter a number from 0-999,999,999,999 using a maximum of two decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of two decimal places]	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • Complete the table for each steel output product selected in column 1. • Your production and capacity figures should be for the reporting year only (as defined by your answer to 1.4). • If you did not have any capacity or production in the reporting year then enter 0 (zero) in the relevant field. • Negative numbers are not allowed. • You should apply the same logic to your boundary definition as provided in question 7.19. Product (column 1) • Select the product(s) relevant to your organization's steel-related production output activities. Select as many as are applicable. You may also wish to select those with no production in the reporting year to confirm zero activity. Production (metric tons) (column 2) • Enter the production in metric tons, for the product selected in column 1. Capacity (metric tons) (column 3) • Enter the production capacity in metric tons, for the product selected in column 1. Comment (column 4) (optional) • Use this column to provide any additional information relevant to the steel product selected in column 1.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	ST

(7.42) Provide details on the commodities relevant to the mining production activities of your organization.

Question details	
Question dependencies	This question only appears if you select one of the options under the "Mining" sub-heading in 1.17.
Change from last year	Minor change
Rationale	Unlike most other high-impact sectors identified by CDP, the metals and mining sector is heterogeneous and highly diverse in structure, and can even be characterized as a group of disparate subsectors. It is, therefore, problematic to consider sector-wide intensities. However, it is useful to identify metals and mining commodities individually and shed light on the presence and impact of them within and between organizations.
Response options	Please complete the following table.

1	2	3	4	5	6
Output product	Capacity, metric tons	Production, metric tons	Production, copper-equivalent units (metric tons)	Scope 1 emissions	Scope 2 emissions
Select from: • Bauxite • Copper • Gold • Platinum group metals • Silver • Iron ore • Nickel • Zinc • Lead • Diamonds • Other non-ferrous metal mining (Please specify) • Other mining (Please specify)	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]

7	8	9
Scope 2 emissions approach	Pricing methodology for copper-equivalent figure	Comment
Select from: • Location-based • Market-based	Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • Complete the table for each mining output product selected in column 1. • Your production and capacity figures should be for the reporting year only (as defined by your answer to 1.4). • If you did not have any capacity or production in the reporting year, then enter zero (0) in the relevant field. • Negative numbers are not allowed. • You should apply the same logic to your boundary definition as provided in question 7.19. Output product (column 1) • Select the product(s) relevant to your organization's mining production activities. Select as many as applicable. You may also wish to select those with no production in the reporting year to confirm zero activity. • If you select "Other non-ferrous metal mining (Please specify)" or "Other mining (Please specify)", provide a label for the output product. Capacity, metric tons (column 2) • Enter the production capacity in metric tons for the mined product selected in column 1. Production, metric tons (column 3) • Enter the production in metric tons resulting from mining activities, for the product selected in column 1. Production, copper-equivalent units, metric tons (column 4) • This column appears if any option other than "Other mining (Please specify)" is selected in column 1. • Enter the production in copper-equivalent units resulting from mining activities, for the product selected in column 1. • Share the methodology used for this equivalent in column 7. • This column is not applicable when "Other mining (Please specify)" is selected in column 1 – "Output product" Scope 1 emissions (column 5) • Enter the Scope 1 emissions associated with the mined product selected in column 1. Scope 2 emissions (column 6) • Enter the Scope 2 emissions associated with the mined product selected in column 1. Scope 2 emissions approach (column 7) • This column only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3.

	Pricing methodology for copper-equivalent figure (column 8) • This column appears if any option other than "Other mining (Please specify)" is selected in column 1. • Disclose the formula(e) and methodology used to calculate the copper-equivalent unit reported in column 4. Comment (column 9) (optional) • Use this column to provide any additional information relevant to the mined product selected in column 1.
Explanation of terms	• Mining production activities: refer to the extraction of ores and do not include the refinement of these commodities. • Platinum group metals: Platinum group metals are six transitional metals located in the d-block of the period table (groups 8, 9 and 10, within periods 5 and 6), that are chemically, physically, and anatomically similar. These metals are ruthenium, rhodium, palladium, osmium, iridium, and platinum. • Copper-equivalent units: Metal equivalent calculations are used to compare similar deposits with slightly different metal ratios. Metal-equivalent units allow organizations to assess how much their deposits are worth in terms of just one of the metals resources they have. Copper-equivalent units enable investors to understand how much combined metal deposits are worth in terms of copper.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	MM

(7.42.1) Provide details on the commodities relevant to the metals production activities of your organization.

Question details	
Question dependencies	This question only appears if you select one of the options under the “Processing metals” sub-heading in 1.17.
Change from last year	Minor change
Rationale	Unlike most other high-impact sectors identified by CDP, the metals and mining sector is heterogeneous and highly diverse in structure, and can even be characterized as a group of disparate sub-sectors. It is, therefore, problematic to consider sector-wide intensities. However, it is useful to identify metals and mining commodities individually and shed light on the presence and impact of them within and between organizations.
Response options	Please complete the following table.

1	2	3	4	5	6
Output product	Capacity (metric tons)	Production (metric tons)	Annual production in copper-equivalent	Scope 1 emissions (metric tons CO2e)	Scope 2 emissions (metric tons CO2e)

			units (thousand tons)		
Select from: • Aluminum • Alumina • Copper • Gold • Platinum group metals • Silver • Nickel • Lead • Zinc • Other non-ferrous metals (Please specify) • Other ferrous metals (Please specify)	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places]

7	8	9
Scope 2 emissions approach	Pricing methodology for copper - equivalent figure	Comment
Select from: • Location-based • Market-based	Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • Complete the table for each metal output product selected in column 1. • Your production and capacity figures should be for the reporting year only (as defined by your answer to 1.4). • If you did not have any capacity or production in the reporting year, then enter 0 (zero) in the relevant field. • Negative numbers are not allowed. • To add more rows to the table, please use the "Add Row" button to the bottom right. • You should apply the same logic to your boundary definition as provided in question 7.19. Output product (column 1) • Select the product(s) relevant to your organization's metal production activities. Select as many as applicable. You may also wish to select those with no production in the reporting year to confirm zero activity. • If you select "Other non-ferrous metals (Please specify)" or "Other ferrous metals (Please specify)", provide a label for the output product. Capacity (metric tons) (column 2)

	• Enter the production capacity in metric tons for the metal product selected in column 1. Production, metric tons (column 3) • Enter the production in metric tons for the metal product selected in column 1. Production, copper-equivalent units, metric tons (column 4) • Enter the production in copper-equivalent units for the metal product selected in column 1. • Share the methodology used for this equivalent in column 7. Scope 1 emissions (column 5) • Enter the Scope 1 emissions associated with the metal product selected in column 1. Scope 2 emissions (column 6) • Enter the Scope 2 emissions associated with the metal product selected in column 1. Scope 2 emissions approach (column 7) • This column only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3. Pricing methodology for copper-equivalent figure (column 8) • Disclose the formula(e) and methodology used to calculate the copper-equivalent unit reported in column 4. Comment (column 9) (optional) • Use this column to provide any additional information relevant to the metal product selected in column 1.
Explanation of terms	• Copper-equivalent units: Metal equivalent calculations are used to compare similar deposits with slightly different metal ratios. Metal-equivalent units allow organizations to assess how much their deposits are worth in terms of just one of the metals resources they have. Copper-equivalent units enable investors to understand how much combined metal deposits are worth in terms of copper. • Metals production activities (or processing of metals): refer to the production of finished metal commodities, resulting from a series of operations that transform raw materials. • Platinum group metals: Platinum group metals are six transitional metals located in the d-block of the period table (groups 8, 9 and 10, within periods 5 and 6), that are chemically, physically, and anatomically similar. These metals are ruthenium, rhodium, palladium, osmium, iridium, and platinum.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC

Questionnaire sector	Question level	MM

(7.43) Disclose your total refinery throughput capacity in the reporting year in thousand barrels per day.

Question details	
Question dependencies	This question only appears if you select "Downstream" in response to 1.19.
Change from last year	No change
Rationale	Investors and other data users are interested in understanding the total refinery throughput as it is important for investment analysis, in addition it can provide context for the organizations emissions for the reporting year.
Response options	Please complete the following table.

1
Total refinery throughput capacity (Thousand barrels per day)
Numerical field up to 99,999 and up to 2 decimal places

[Fixed row]

Requested content	General • For the purpose of this question all types of refinery are included, such as coking, cracking, hydroskimming, topping, condensate splitter and upgrader. • Refinery throughput is considered the capacity for refining crude oil and other feedstocks over a given period.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.43.1) Disclose feedstocks processed in the reporting year in million barrels per year.

Question details	
Question dependencies	This question only appears if you select "Downstream" in response to 1.19.
Change from last year	No change
Rationale	There is a significant environmental impact due to the energy intensive nature and emissions output associated with the processing of feedstocks. Understanding the throughput of feedstocks processed in the reporting year is important for investment analysis.

Response options	Please complete the following table.

1	2	3
Feedstock	Throughput (Million barrels)	Comment
Oil	Numerical field [enter a number from 0-9,999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]
Other feedstocks		
Total		

[Fixed row]

Requested content	Throughput (Million barrels) (column 2) • Enter the throughput for the reporting year in million barrels for the feedstocks (oil or other feedstocks) relevant to your organization. • The "Other feedstocks" option is in the "Feedstock" column to allow flexibility in the reporting of refined products. The total row should equal the sum of rows above it (i.e. oil and other feedstocks).
Additional information	Explanations of the feedstocks listed are available in the following Technical Note: "Fuel Definitions".

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.43.2) Are you able to break down your refinery products and net production?

Question details	
Question dependencies	This question only appears if you select "Downstream" in response to 1.19.
Change from last year	No change
Rationale	It is important to take account of refinery net production and product slate in order better understand the sources of Scope 3 category 11 "use of sold product" emissions from organizations. It is also useful to investors for broadly indicating the spread of the organization across the various petroleum product markets.
Response options	Select one of the following options: • Yes • No

Requested content	General

	• Select "Yes" if you can disclose your refinery products and net production in the reporting year. • Refinery products can include, but are not limited to, liquefied petroleum gas, gasolines, naphtha, kerosene, diesel fuels, fuel oils, lubricants, waxes, asphalt and tar, petroleum coke and still gas for example.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.43.3) Disclose your refinery products and net production in the reporting year in million barrels per year.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.43.2.
Change from last year	No change
Rationale	It is important to take account of refinery net production and product slate in order better understand the sources of Scope 3 category 11 "use of sold product" emissions from organizations. It is also useful to investors for broadly indicating the spread of the organization across the various petroleum product markets.
Response options	Please complete the following table.

1	2
Product produced	Refinery net production (Million barrels) *not including products used/consumed on site
Select from: • Liquified petroleum gas • Gasolines • Naphtha • Kerosenes • Diesel fuels • Fuel oils • Lubricants • Waxes • Asphalt and tar • Petroleum coke • Still gas • Other, please specify	Numerical field [enter a number from 0-9,999 using a maximum of 2 decimal places]

[Add row]

Requested content	General • Provide the net production figures for your refinery products, for more information on the products listed see the explanation of terms. • If you select "Other, please specify," provide a label for the product produced.

	• You should not report product sales here. • Refinery production covers petroleum products produced at a refinery or blending plant. • Net refinery production equals refinery production minus refinery input.
Additional information	Explanations of the products listed are available in the following Technical Note: "Fuel Definitions".

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.43.4) Please disclose your petrochemicals production in the reporting year in thousand metric tons.

Question details	
Question dependencies	This question only appears if you select "Chemicals" in response to 1.19.
Change from last year	No change
Rationale	Petrochemicals is an important part of the oil and gas value chain but not practiced by all integrated oil and gas companies or independent refiners. It is therefore necessary to take account of these activities separately. To help data users understand the coverage of activities employed by oil and gas companies, it is important for organizations to provide transparency on petrochemicals production activities, as these have environmental impacts and are exposed to transition risks.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3
Product	Production, Thousand metric tons	Capacity, Thousand metric tons
Select from: • High value chemicals (Steam cracking) • Other, please specify	Numerical field [enter a number from 0-999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999 using a maximum of 2 decimal places]

[Add row]

Requested content	General • Steam cracking is the main method of breaking down large molecules of hydrocarbons, in which a gaseous or liquid hydrocarbon is diluted with steam and then heated. The main products for the steam cracking process are high value chemicals (HVC's). • HVC's include lower olefins such as ethylene, propylene from the pyrolysis gas of steam crackers, benzene (contained amounts, excluding extracted amounts), butadiene (also contained), acetylene and hydrogen sold (as fuel). • If you select "Other, please specify," provide a label for the product.
Explanation of terms	• High value chemicals: High value chemicals (HVCs) produced via steam cracking include ethylene, propylene from the pyrolysis gas of steam crackers, benzene (contained amounts,

	excluding extracted amounts), butadiene (also contained), acetylene, and hydrogen sold (as fuel). • Steam cracking: Steam cracking is the main method of breaking down large molecules of hydrocarbons, in which a gaseous or liquid hydrocarbon is diluted with steam and then heated. The main product for steam cracking process is HVC's.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.44) Explain which listing requirements or other methodologies you have used to provide reserves data in 7.37. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries/areas, please explain this.

Question details	
Change from last year	No change
Rationale	The intention of this question is to highlight any limitations on the comparability of data that may be due to different methodologies being used.
Response options	This is an open text question with a limit of 5,000 characters.

Requested content	General • There are a variety of listing requirements or other methodologies available which you may use to aid in providing reserves data. • Please give the name of listing requirements or other methodologies or give a description of an in-house methodology or a combination of in-house and published methodologies used to provide reserves data in 7.37. • Please provide a description of the listing requirements, methodology or methodologies that you have used to provide reserves data in 7.37. • CDP makes no judgments on the listing requirements or other methodologies applied by companies and it is not the intention to seek any proprietary information on how to estimate reserves. • If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries/areas, please explain this.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CO

Intensity Metrics

(7.45) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO_2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Question details	
Change from last year	Minor change
Rationale	Intensity measures describe an organization's CO_2e emissions in the context of another business metric. In this way, the emissions are normalized to account for growth and other factors. Many organizations and investors have historically tracked environmental performance with intensity ratios.
Ambition	Companies disclose that intensity metrics covering their gross global Scope 1 and 2 emissions have decreased in the reporting year.
Response options	Please complete the following table:

1	2	3	4	5	6
Intensity figure	Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year
Numerical field [enter a number from 0-999,999,999,999,999 using a maximum of 10 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999,999 using a maximum of 10 decimal places and no commas]	Select from: • unit total revenue • barrel of oil equivalent (BOE) • billion (currency) funds under management • full time equivalent (FTE) employee • kilometer • liter of product • megawatt hour generated (MWh) • megawatt hour transmitted (MWh) • megawatt hour purchased (MWh) [EU sector only] • metric ton of product • ounce of gold • ounce of platinum	Numerical field [enter a number from 0-999,999,999,999,999 using a maximum of 2 decimal places and no commas]	Select from: • Location-based • Market-based	Numerical field [enter a number from 0-999 using a maximum of 2 decimal places]

		• passenger kilometer • room night produced • square foot • square meter • metric ton of aggregate • metric ton of aluminum • metric ton of coal • metric ton of ore processed • metric ton of steel • unit hour worked • unit of production • unit of service provided • vehicle produced • Other, please specify			

7	8	9
Direction of change	Reasons for change	Please explain
Select from: • Increased • Decreased • No change	Select all that apply: • Change in renewable energy consumption • Other emissions reduction activities • Divestment • Acquisitions • Mergers • Change in output • Change in revenue • Change in methodology • Change in boundary • Change in physical operating conditions • Unidentified • Other, please specify	Text field [maximum 2,400 characters]

[Fixed row]

Requested content	General • It is requested that you first report your emissions intensity figure per unit of currency total revenue and if applicable provide any additional intensity metrics that are appropriate to your business operations. The currency reported here should be the same one selected in 1.2. Emissions intensity per unit of revenue is one the most common and easy means to

calculate emissions intensity, which is why it is requested that you provide this figure. However, this is not necessarily always the most appropriate to individual businesses and therefore you can also report an additional intensity or normalized metric that is most appropriate to your organization's own operations.

- If you are a privately held organization, you may report whichever intensity is relevant for you. Please note that per unit of revenue is the preferred disclosure.
- If you did not disclose to CDP last year, or did not use this data point, please use last year's inventory and financial data to provide a calculation of percentage change. If you did not measure your emissions last year, complete column 1 and explain why you do not have the data available in column 9.
- If your change in emissions intensity is attributed to a decline or an increase in your business output (products or services) due to the COVID-19 pandemic, please select "Change in output" in column 8 "Reason for change" and provide further details of how your output was affected in the "Please explain" column.

Intensity figure (column 1)

- Intensity ratios express GHG impact per unit of physical activity or unit of economic output.
- Your intensity figure per unit of currency total revenue is calculated by dividing total Scope 1 and 2 emissions by unit revenue, making sure that the revenue figure used applies to the same organizational boundary as your emissions data.
- Important points to remember when calculating intensity are:
    - Intensity = Emissions (metric tons CO2e) (Numerator) / Business metric (e.g. revenue) (Denominator)
    - Numerator units: the intensity metrics requested in this question should have emissions in metric tons CO2e as the numerator. They should include Scope 1 and Scope 2 emissions combined. This figure can be obtained by summing the figures given in answer to questions 7.6 and 7.7.
    - Denominator units: When calculating your intensity, you should ensure that the units of your data match those specified in the intensity metric. For example, this question requests for intensity in metric tons CO2e per unit currency revenue. This means that your revenue figure (the denominator) should be in the currency you specified in 1.2 and in single units, i.e. if your revenue is 5 Million US$ your unit revenue is 5000000. Another example would be metric tons CO2e per MWh – if your data is in kWh you must convert it to MWh before using it in the calculation.
    - Boundary and Exclusions: You should ensure that the organizational boundary and any exclusions specified for your numerator is the same as for your denominator. For example, when entering your emissions per FTE employee you should ensure that you only include those FTE employees that are within the sections of the organization covered by the organizational boundary of your emissions and take into account any exclusions (as specified in question 7.4.1).

Metric denominator (column 3)

- To report your organization's emissions intensity per unit currency total revenue, select "unit total revenue" in column 3 (metric denominator) for this column.
- Please note that the denominator in the selection "unit total revenue" is per single unit (1) of the currency specified in question 1.2. Please do not report your revenue emissions intensity based on multiples of your selected currency (e.g. do not report in multiples of Yen). It is understood that this will likely result in your intensity figure being quite small (less than 0.01).

Metric denominator: Unit total (column 4)

- Ensure that the metric denominator figure provided in this column is the same unit that was chosen in column 3.
- For example, if your chosen metric in the previous column was FTE, you should input here how many FTE you had during the reporting year.

Scope 2 figure used (column 5)

- This column only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3.

% change from previous year (column 6)

- If you have experienced no change, please enter 0 (zero) in this column.
- If the previous year's figure has been reported but recalculated since, please use the recalculated figure for the calculation of percentage change and note this in the last column. The previous year compared should apply to the 12-month period directly prior to the reporting period, even if it does not completely overlap with the period previously reported to CDP.

Direction of change (column 7)

- A declining intensity ratio reflects a positive performance (improvement), while an increasing intensity ratio reflects a negative performance (decline).
- If the percentage change from last year is 0 (zero) select "No change".

Reason(s) for change (column 8).

- Further details on each of the options are provided below:
    - Change in renewable energy consumption – a change in your organization's emissions intensity due to any consumption of self-generated or purchased renewable energy that was additional in the reporting year. Note that if your emissions intensity has changed due to changing Scope 2 accounting method (i.e., from Scope 2 location-based to Scope 2 market-based or vice versa), you should not select this option, but select "Change in methodology" (see below).
    - Other emissions reduction activities – a change in your organization's emissions intensity because of proactive emissions reduction initiatives or activities, for example those listed in question 7.55.2, other than those caused by a change in renewable energy consumption.
    - Divestment – a change that occurred due to selling off certain aspects of the businesses.
    - Acquisitions – a change that occurred due to purchasing or obtaining another company/subsidiary/facility.
    - Mergers – a change that occurred due to business mergers.
    - Change in output – a change that occurred as a result of changes (increases or decreases) in your business output (i.e. a product or service); this could be, for example, organic growth, purchase of additional facilities due to business expansion, declines in sales due to a global recession, or release of a new product.
    - Change in revenue – a change that occurred due to changes (increases or decreases) in your organization's revenue (irrespective of business output); this could be, for example, due to an increase in price of products or services sold.
    - Change in methodology – a change that occurred due to modifications in the way that the inventory is calculated, for example, changes in emissions factors used or

	changes in methodology protocol followed. If your Scope 1+2 emissions intensity has changed as a result a change in Scope 2 accounting practices for low-carbon energy, you should select this option. o Change in boundary – a change in your organization's emissions intensity due to a change in the boundary used for your inventory calculation, i.e. changing from financial control to operational control. This option could also apply if you have incorporated facilities into your inventory that were excluded in previous years. o Change in physical operating conditions – a change that occurred due to changes in the weather that cannot be accounted for under the other options available, e.g. increased production of hydroelectricity because of increased rainfall. o Unidentified – select this option if you are not able to identify the reason for the change in your Scope 1+2 emissions intensity from the previous year. Please explain (column 9) • Expand on the reason(s) selected in column 8, providing regional, sectoral and/or operational context. • Explain the degree to which different factors influenced the change in your intensity figure. • If you selected "Other emissions reduction initiatives" in column 8, specify the initiatives that contributed to the change, including those reported in 7.55.2. • You may also use this column to provide any additional explanation that is relevant to capture the full complexity of the emissions intensity change.
Requested content – [sector]	Note for coal sector companies: • Coal sector companies are requested to provide an emissions intensity figure per unit of currency total revenue and in addition, per metric ton of coal. Note for electric utility sector companies: • Electric utility sector organizations are requested to provide an emissions intensity figure per unit of currency total revenue and in addition, report your organization's gross global combined Scope 1 and 2 emissions intensity per MWh of gross power generated and/or per MWh of power transmitted and/or per MWh of power purchased – make sure to select megawatt hour generated (MWh) and/or megawatt hour transmitted (MWh) and/or megawatt hour purchased (MWh). Note for oil and gas sector companies: • Oil and gas sector organizations are requested to provide an emissions intensity figure per unit of currency total revenue. • Please note that question 7.48 asks oil and gas organizations to provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category. Note for transport OEMs and transport services sector companies: • Transport OEMs and transport services sector organizations are requested to provide an emissions intensity figure per unit of currency total revenue. • Please note that, dependent on the extent you are able to disaggregate your emissions intensity for each transport mode between Scopes 1, 2, and 3: Category 4 upstream transportation and distribution, transport services organizations are asked to provide primary intensity (activity-based) metrics that are appropriate to emissions from transport activities in Scope 1, 2, and 3 in question 7.51. Note for real estate sector companies:

	• In addition to reporting emissions intensity figure per unit of currency total revenue, real estate companies should consider reporting emissions intensity by occupants or square area. Note for capital goods sector companies: • In addition to reporting an emissions intensity figure per unit of currency total revenue, capital goods companies should consider reporting emissions intensity by unit of production or unit of service provided. • If you measure the emissions intensity of specific products or product ranges, you will have the opportunity to provide this information in questions 7.34 and 7.34.1.
Explanation of terms	• Intensity metrics: Intensity metrics describe an organization's CO2e emissions in the context of another business metric. In this way, the emissions are normalized to account for growth. Intensity is calculated by dividing the CO2e emissions figure (the numerator) by an alternative business metric (the denominator), such as the number of full-time equivalent employees, the revenue or tons of aggregate produced. • Revenue: gross income arising from the operations of an organization over a period of time.
Example response	Worked example of calculating emissions intensities figures A reporting organization has gross total combined Scope 1 and 2 emissions of 300,000 metric tons CO2e, revenue of 5 Million US$ and 3,000 FTE employees. In this case, the company could calculate and report its emission intensity figures by revenue and by FTE as follows: 1. Emissions intensity in metric tons CO_2e per unit currency total revenue Intensity = 300,000 (metric tons CO_2e)/5,000,000 (US$)= 0.06 2. Emissions intensity in metric tons CO_2e per FTE employee Intensity = 300,000 (metric tons CO_2e)/3,000 (FTE employee)= 100

Intensity figure	Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO_2e)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change	Reasons for change	Please explain
0.06	300,000	unit total revenue	5,000,000	Market-based	3	Decreased	Change in renewable energy consumption	We have been making progress on our initiative to increase our renewable energy consumption. Our additional renewable electricity procurement directly from an off-site wind farm has increased our share of RE by 10% this year, leading to a decrease in emissions intensity. We have reported details of this initiative in 7.55.2.

100	300,000	full time equivalent (FTE)	3,000	Market-based	4	Decreased	Other emissions reduction activities	In addition to reducing our emissions by shifting to electric vehicles we have hired more full time employees in the reporting year. We have an ongoing initiative to shift our company fleet to electric vehicles which we have detailed in 7.55.2.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.46) For your electric utility activities, provide a breakdown of your Scope 1 emissions and emissions intensity relating to your total power plant capacity~~,~~ and generation during the reporting year by source.

Question details	
Question dependencies	This question only appears if you select "Electricity generation" in response to question 1.16.
Change from last year	Modified guidance
Rationale	This question provides data users with more transparency regarding organizations' active sourcing of low-carbon energy.
Response options	Please complete the following table:

0	1	2	3	4
Power generation technology	Absolute Scope 1 emissions (metric tons CO_2e)	Emissions intensity based on gross or net electricity generation	Scope 1 emissions intensity (Gross generation)	Scope 1 emissions intensity (Net generation)
Coal – Hard	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Select from: • Gross • Net	Numerical field [0-999,999,999,999 using a maximum of 2 decimal places] [auto-calculated] from Column 1 / 1.16.1 column 3	Numerical field [0-999,999,999,999 using a maximum of 2 decimal places] [auto-calculated] from Column 1 / 1.16.1 column 4
Lignite				
Oil				
Gas				

Sustainable biomass				
Other biomass				
Waste (non-biomass)				
Nuclear				
Fossil-fuel plants fitted with carbon capture and storage				
Geothermal				
Hydropower				
Wind				
Solar				
Marine				
Other renewable				
Other non-renewable				
Total				

[Fixed row]

Requested content	General • Rows will appear in this question where "Yes" was selected in column 1 "Power Generation Source" of 1.16.1 • Report absolute Scope 1 emissions and Scope 1 emissions intensity for the primary power generation sources owned or controlled by the company, as reported in 1.16.1 • Gross electricity generation is the total amount of electric energy produced by generating units and measured at the generating terminal. • Net electricity generation is the amount of gross generation less the electrical energy consumed at the generating stations for station service or auxiliaries. • Refer to the CDP Technical note on Biofuels for guidance on biomass/biofuel sustainability. • Biomass may be combusted on its own or co-fired with other fuels. Provide aggregate data for the biomass that you combust on its own and biomass that you co-combust with other fuel sources. • Waste can include tire-derived fuels and other refuse-derived fuels. When reporting in category "Waste (non-biomass)", only report for the non-biomass fraction. The biomass fraction should be reported under either biomass option. • Emissions intensity is provided in metric tons CO2e per GWh, which is equivalent to kgCO2e per MWh, or grams CO2e per kWh. For thermal generation from fossil fuels, emissions intensity typically falls inside the range 300-1200 metric tons CO2e per GWh. • Hydropower does not include pumped storage which CDP regards as a form of managing or storing energy rather than primary generation. • "Other renewable" and "Other non-renewable" are aggregations of any other renewable and non-renewable energy generation technologies you use that are not listed (e.g. renewably derived hydrogen or hydrogen derived from fossil fuels, respectively). • If parts of your organizations power plant capacity is comprised of multiple mixed small-scale generation technologies that are difficult to report by specific power generation technology, then these can be aggregated by renewable and non-renewable sources. The

	aggregated renewable sources figure can be reported in the row "Other renewable" and the aggregated non-renewable sources figure can be reported in the row "Other non-renewable". • If fully disclosed, the figures you report in the bottom row "Total" of column 1 should equal the sum of all above rows.

Explanation of terms	• Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004).
	• Biomass: any organic matter, i.e. biological material, available on a renewable basis. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources. Biomass fuels should be sustainably sourced and certified where possible, and include:
	  ○ Solid biofuels - solid fuels derived from biomass. Includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources.
	  ○ Biogas - a mixture of methane (CH4) and carbon dioxide (CO2) used as fuel and produced by bacterial degradation of organic matter or through gasification of biomass.
	  ○ Liquid biofuels – liquid fuels derived from biomass such as ethanol and biodiesel.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	EU

(7.47) State your organization's Scope 1 and Scope 2 emissions intensities related to cement production activities.

Question details	
Change from last year	Modified guidance
Rationale	For high impact homogenous sectors, it is common to express emissions per unit of physical output. Emissions intensity provides the means to indicatively compare emissions between companies and better understand the importance and spread of emissions across the sector.
Response options	Please complete the following table:

1	2	3	4
Output product	Gross Scope 1 emissions intensity, metric tons CO2e per metric ton	Net Scope 1 emissions intensity, metric tons CO2e per metric ton	Scope 2, location-based emissions intensity, metric tons CO2e per metric ton
Clinker	Numerical field [enter a number from 0-99 using a maximum of 4 decimal places]	Numerical field [enter a number from 0-99 using a maximum of 4 decimal places]	Numerical field [enter a number from 0-99 using a maximum of 4 decimal places]

Cement equivalent			
Cementitious products			
Low-CO_2 materials			

[Fixed row]

Requested content	General • The figure provided for direct emissions (Scope 1) intensity may be derived by following the guidance in the SBTi Cement Guidance. Accounting standards and detailed calculation methodology can be found in the link provided. • In distinction from the CSI approach, you are encouraged to modify your fuel emission factors to include minor emissions of CH_4 and NO_2 that result from combustion. • Further information on the definition of the cement sector boundary (encompassing "cement production activities") is provided in the guidance to questions 7.19 and 7.21. • Complete the table for each of the output products. • Your emissions intensity figures should be for the reporting year only (as defined by your answer to 1.4). • If you do not produce one of the cementitious products, enter 0 (zero) in the relevant field. • Intensity for each process route is the aggregate of emissions divided by the aggregate of product produced. This equates to the weighted average intensity per production activity inside the organizational boundary. • The conventional output products are defined in the accounting standards set by the CSI (where clinker, cementitious products, and cement equivalent, have ID's 8, 21a, and 21b, respectively). • Emission intensities of "Cement equivalent" and "Cementitious products" production includes the emissions resulting from the production of clinker. Calculation information is provided by the CSI. Gross Scope 1 emissions intensity, metric tons of CO_2e per metric ton (column 2) • Enter the Gross Scope 1 emissions intensity for each of the products produced by your organization, in metric tons of CO_2e per metric ton. • The term "Gross" aligns with the definition provided for question 7.6. This excludes emissions from biomass or biomass derived wastes. Net Scope 1 emissions intensity, metric tons of CO_2e per metric ton (column 3) • Enter the net Scope 1 emissions intensity for each of the products produced by your organization, in metric tons of CO_2e per metric ton. • Net emissions are gross emissions minus credits for indirect GHG savings. Credits may be awarded for the use of "alternative fuels and raw materials (AFR). AFR come in the form of recovered wastes which displace the use of fossil fuels. Subtracting credits is in-effect applying a zero-emission factor to the combustion of these wastes. For more information, refer to the SBTi Cement Guidance. Scope 2 location-based emissions intensity, metric tons of CO_2e per metric ton (column 4) • Enter the Scope 2 emissions intensity for each of the products produced by your organization, in metric tons of CO_2e per metric ton. • You should provide location-based Scope 2 emissions intensity.

Explanation of terms	• Scope 1, and Scope 2 location-based: These terms are based on the standard set by The Greenhouse Gas Protocol. • Alternative "low CO_2" cementitious materials (also referred to as "low-CO_2 materials" and "alternative low-CO_2 cements/binders"): Alternative binding systems that represent a major shift from the traditional process of producing Portland clinker and cement, e.g. alkali activated cements. These alternative cements reduce CO_2 process emissions, which are significant and inherent in Portland clinker production.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CE

(7.48) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Question details	
Change from last year	No change
Rationale	Intensity measures describe an organization's CO_2e emissions in the context of another business metric. In this way, the emissions are normalized to account for growth. Data users and investors often track environmental performance with intensity ratios.
Response options	Please complete the following table:

1	2	3	4	5	6
Unit of hydrocarbon category (denominator)	Metric tons CO2e from hydrocarbon category per unit specified	% change from previous year	Direction of change	Reason for change	Comment
Select from: • Thousand barrels of crude oil/condensate • Thousand barrels of natural gas liquids • Thousand barrels of oil sands (includes bitumen and synthetic crude) • Million cubic feet of natural gas • Thousand barrels of refinery throughput • Thousand barrels of refinery net production	Numerical field [enter a number from 0-999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999 using no decimals]	Select from: • Increased • Decreased • No change	Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]

• Thousand metric tons of "high value chemicals" (lower olefins) • Other, please specify					

[Add row]

Requested content	General • If you select "Other, please specify," provide a label for the Unit of hydrocarbon. Unit of hydrocarbon category (denominator) (column 1) • High value chemicals (HVCs) include lower olefins such as ethylene, propylene from the pyrolysis gas of steam crackers, benzene (contained amounts, excluding extracted amounts,) butadiene (also contained,) acetylene and hydrogen sold (as fuel). Metric tons CO_2e from hydrocarbon category per unit specified (column 2) • Scope 1 emissions per unit of hydrocarbon category reported here should be entered in metric tons CO_2e per unit specified in column 1. % change from previous year (column 3) • If you have experienced no change, please enter 0 (zero) in this column. • If the previous year's figure has been reported but recalculated since, please use the recalculated figure for the calculation of percentage change and note this in the comment column (column 6). The previous year is the 12-month period directly prior to the reporting period, even if it does not completely overlap with the period previously reported to CDP. Direction of change (column 4) • A declining intensity ratio reflects a positive emissions performance, while an increasing intensity ratio reflects a negative emissions performance. • If the percentage change from last year is 0 (zero) or you do not have sufficient data to calculate the change, select No change. Reason for change (column 5) • Describe why your emissions intensity has changed. Explain the primary reasons behind the change and the degree to which different factors have influenced the figures.
Explanation of terms	• High value chemicals: High value chemicals (HVCs) produced via steam cracking include ethylene, propylene from the pyrolysis gas of steam crackers, benzene (contained amounts, excluding extracted amounts), butadiene (also contained), acetylene, and hydrogen sold (as fuel).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.49) State your organization's emissions and energy intensities by steel production process route.

Question details	
Change from last year	Modified guidance
Rationale	For high impact homogenous sectors, it is common to express emissions per unit of physical output. In the case of steel, energy intensity is also an important metric measured by the industry. Steel is produced via different routes, each of which plays a key role in the sustainability of steel supply to the economy. However, because typical intensities vary between routes, disclosing a single company-wide intensity could be misleading, because it masks the relative contribution from each route. Data users are therefore interested in average intensities per process route. The aim is to account for emissions concentration across sector and organization by acknowledging different process routes within the sector.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3	4	5
Process route	Emissions intensity figure, metric tons CO2e per metric ton of crude steel production	Energy intensity figure, GJ (LHV) per metric ton of crude steel production	Methodology applied	Comment
Select from: • Blast furnace- basic oxygen furnace • Scrap-electric arc furnace • Direct reduced iron-electric arc furnace • Other, please specify	Numerical field [enter a number from 0-99 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-99 using a maximum of 2 decimal places]	Select from: • GHG Protocol • Worldsteel Association • Other, (please specify	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • Complete this table for all process routes occurring inside your organizational boundary. • Add rows for routes that are not listed. • Data and information that you provide should be for the reporting year only (as defined by your answer to 1.4). • Emissions from finishing should not be included for process routes reported in this question. • Intensity for each process route is the aggregate of emissions or energy divided by the aggregate of crude steel produced. This equates to the weighted average intensity per process route inside the organizational boundary. • No calculation of hypothetical intensities for benchmarking purposes should be disclosed here. However, depending on the methodology used, credit may be awarded for energy or carbon leaving the organizational boundary.

Emissions intensity figure, metric tons CO_2e per metric ton of crude steel production (column 2)

- Enter the emissions intensity by steel production route in metric tons of CO_2-equivalent per metric ton of crude steel produced.

Energy intensity figure, GJ (LHV) per metric ton of crude steel production (column 3)

- Enter the energy intensity by steel production route in metric GJ (LHV) per metric ton of crude steel produced.
- Higher heating value (HHV) is also known as gross calorific value (GCV), and lower heating value (LHV) is also known as net calorific value (NCV). Typically, LHV/HHV ratio is 0.95 for solid and liquid hydrocarbon fuels, such as coal and oil, and 0.9 for gaseous hydrocarbon fuels, such as natural gas.

Methodology applied (column 4)

- You should apply the same methodology for energy and emissions intensity.
- Select from the drop-down the methodology used to evaluate the emissions (metric tons of CO_2-equivalent) and energy intensity (GJ(LHV)) of steel production per metric ton of crude steel produced.
- If the methodology applied is not in the dropdown, then please specify.
- If you choose the GHG Protocol, then you should calculate your emissions intensity using the equation below. Emissions relating to the production of purchased fuels, feedstocks, and raw materials should not be included for this methodology as it is classified under Scope 3

$$\text{CO2e intensity} = \frac{\text{Scope 1 + Scope 2}}{\text{Crude steel produced}}$$

- If you choose the GHG Protocol, then you should calculate net energy intensity. Your calculation boundary should include consumption of fuel and fuel feedstocks (as distinct from C8.2 questions which excludes fuel feedstocks). For example, this would include consumption of coal and coke at coke ovens and blast furnaces while coke oven gas and blast furnace gas consumption are balanced by their production. Consumption of purchased or acquired electricity, steam, heat, and/or cooling should also be included. Energy required for the production of purchased fuels, feedstocks, and raw materials should not be included for this methodology as it is classified under Scope 3. The general equation below describes the calculation of net energy intensity.

$$\text{Net Energy intensity} = \frac{\text{Energy in - Energy out}}{\text{Crude steel produced}}$$

- CDP encourages the use of the Worldsteel methodology. This is because the Worldsteel methodology includes wider and indirect activity considerations, which improves consistency. General guidance may be referred to in this Worldsteel guide.
- Further guidance on emissions accounting in the steel sector is provided volume 3, chapter 4, of IPCC Guidelines for National GHG inventories. Drawing from these guidelines, the GHG Protocol provide further guidance and a tool to assist in the calculation of steel sector emissions.

	Comment (column 5) (optional) • You may provide information about the methodology and boundary used in the calculation of intensities.

Additional information	GHG Protocol
	• The GHG Protocol provides a range of sector-specific tools, one of which is for Iron and Steel.
	• This tool provides a methodology to calculate CO_2 emissions from direct reduced iron (DRI) production.
	
	The World Steel Association (worldsteel)
	• The worldsteel Climate Action Recognition Program aligns with a methodology that has been published as an International standard (ISO 14404: 2013), a calculation method of carbon dioxide emission intensity from iron and steel production.
	• This ISO standard consists of two parts:
	  ○ Part 1: Steel plant with blast furnace, and;
	  ○ Part 2: Steel plant with electric arc furnace (EAF).
	• This globally consistent methodology allows production to be normalized to allow CO_2 emission comparisons between sites.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	ST

(7.50) Provide primary intensity metrics that are appropriate to your indirect emissions in Scope 3 Category 11: Use of sold products from transport.

Question details	
Change from last year	No change
Rationale	Intensity metrics can help investors and data users compare the performance of your products with others with a similar purpose, as well as with policy and market trends.
Response options	Please complete the following table: You are able to add rows by using the "Add Row" button at the bottom of the table. The table is displayed over several rows for readability.

1	2	3	4	5	6
Activity	Emissions intensity figure	Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO2e	Metric denominator	Metric denominator: Unit total	% change from previous year

Select from: Drop down options determined by transport modes selected in 1.21	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Select from: LDV • p.km • t.km • p.mile • t.mile HDV • p.km • t.km • p.mile • t.mile Rail • p.km • t.km • p.mile • t.mile Marine • p.km • t.km • p.mile • t.mile • p.nautical mile • t.nautical mile Aviation • p.km • t.km • p.mile • t.mile	Numerical field [enter a number from 0-999,999,999,999,999 using a maximum of 6 decimal places], and no commas	Percentage field [enter a percentage from -999 - 999 using a maximum of 2 decimal places]

7	8	9	10	11
Vehicle unit sales in reporting year	Vehicle lifetime in years	Annual distance in km or miles (unit specified by column 4)	Load factor	Please explain the changes, and relevant standards/methodologies used
Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • This question requests primary intensity metrics that give an indication of the emissions performance of units sold by the transport OEM, normalized by units of transport and distance.

- The metrics required in this question are all in the format of tons of CO_2e, per unit of transport (passenger or ton), per unit of distance (kilometer or mile). Please see the Technical Note on "Measuring the emissions intensity of transport movements" for more information and guidance on the measurement of these indicators. for more information and guidance on the measurement of these indicators.
- This emissions intensity metric is requested as an average for the total fleet of vehicles of a particular mode sold by the responding OEM.
    - For example, for an automobile manufacturer, this metric represents the average CO_2e emitted by cars produced in the reporting year, per passenger, per kilometer travelled. This can be calculated from the average CO_2e per vehicle kilometer metric by adding in a load factor for the average expected number of passengers.
- The question is made up of 11 fields for each transport mode, whereby an intensity figure is requested, its numerator and denominator, as well as the input parameters and assumptions used to calculate this. This provides data users with the possibility to compare methods and gain an insight in the assumptions that OEMs use.
- Any other metrics, such as intensity per vehicle instead of per passenger/ton, should not be reported here, but in question C-TO8.5.

Activity (column 1)

- Select the activity that you would like to provide data for.
- Activity modes presented in drop-down options are determined by transport modes selected in response to 1.21.

Emissions intensity figure (column 2)

- Report the intensity figure that corresponds with the activity in column 1.
- This is the direct emissions intensity figure, calculated using the numerator you are asked for in column 3, and the denominator reported in column 5 using the denominator units selected in column 4.

Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO_2e (column 3)

- Provide the total emissions figure for the activity selected in column 1, in metric tons CO_2e.
- This figure is usually derived by multiplying the average emissions per kilometer per vehicle by the total number of all vehicle units sold in reported year (column 7) by the average annual distance in kilometers expected for each vehicle (reported in column 9), and then multiplied by the average vehicle lifetime in years (reported in column 8).

Metric denominator (column 4)

- Select the relevant metric denominator:
    - p.km – passenger-kilometers
    - t.km – ton-kilometers
    - p.mile – passenger-miles
    - t.mile – ton-miles
    - p.nautical mile – passenger-nautical miles
    - t.nautical mile – ton-nautical miles

- You are expected to provide data separately for vehicles intended for passenger and freight modes of transport, respectively. You may choose to add more rows to split up your

	intensity metric by vehicle sub-modes. In this case, please give a brief description of the mode boundary you use in column 11. • You are only asked to report on the metric that is most significant for the vehicles types that you are selling. For example, if you produce and market passenger automobiles, then it is expected these are intended for passenger transport, thus a freight intensity figure in t.km would not be meaningful. Metric denominator: Unit total (column 5) • Enter the numerical value of the denominator selected in column 4, which should be derived by multiplying the number of vehicles sold (column 7) by total lifetime distance in km or miles (column 8 and 9) by the load factor (reported in column 10) % change from previous year (column 6) • If you have experienced no change, please enter 0 (zero) in this column. • Leave the column blank if you do not have sufficient data to calculate the change from the previous year, or if this is the first year you have tracked this metric. • Putting in zero would suggest that you have compared your emissions to the 12-month period prior, and that they were equal to zero. Vehicle unit sales in reporting year (column 7) • Report the total vehicle unit sales for the vehicles that fall into the category selected in column 1, which you have used for the calculation of this metric. Vehicle lifetime in years (column 8) • Report the average vehicle lifetime assumption used to calculate the total ton of passenger-kilometers. Annual distance in km (column 9) • Report the average annual travel distance assumption for a vehicle sold. Load factor (column 10) • For OEMs, to calculate this metric an assumption will have to be made on the load factor. • This is a free text field, as companies are invited to explain more about their load factor assumptions. • For data on passenger-kilometers, companies are asked to report the number of passengers expected per average trip. For light duty vehicles, this is expected to be between 1 and 2 passengers, depending on geography and weighted sales of vehicle modes. • As the load factor can be an assumption (as companies may not have actual data), it is acceptable to use default factors from other sources. e.g. passenger load factors used in MoMo, 2017 (Annex ii, Transport science-based target setting guidance, Science based Targets 2018). OEMs who do not have data or default factors to make any reasonable assumption on the freight load factor of their vehicles, or whose range may be too diverse to make such an assumption, are invited to report the average maximum load in tons for all vehicles sold in the reporting year.

	• Companies may choose to report multiple rows of data for different vehicle modes, whereby the load factor in tons or number of passengers will be the primary differentiator. Please explain the changes, and relevant standards/methodologies used (column 11) • Explain any changes in primary intensity metrics compared to previous year, reported in column 6. • If you used any relevant existing standards and/or methodologies to calculate your emission intensities, mention them here. • You may use this text field to provide any additional explanation relevant to capture the calculation methodology and other important notes and caveats that exist in your calculation of this metric.
Explanation of terms	• Primary intensity metric: This transport-specific intensity metric allows for the direct comparison of vehicle performance to climate-related scenarios. These metrics measure the efficiency of transportation based on the actual work being done. The amount of work done comprises the goods and/or passengers moved and the effective distance that these goods/passengers are moved, from origin to destination. For the organization, the efficiency of total work done is determined by combining the total of transported units and the distance driven with these units. The standard unit is metric ton of CO_2e per ton-kilometer or passenger-kilometer. • Metric tons of CO_2-equivalent (tCO_2e): a metric that allows for other Greenhouse Gases (GHGs) to be expressed in relation to CO_2 based on their Global Warming Potentials (GWPs). A metric ton is 1000 kg, equivalent to 2204.62 lbs. • Passenger-kilometer (p.km): a unit of measurement which represents the transportation of one passenger by a defined mode of transport over a distance of one kilometer. • Passenger-mile (p.mile): a unit of measurement which represents the transportation of one passenger by a defined mode of transport over a distance of one mile. • Passenger-nautical mile (p.nautical mile): a unit of measurement which represents the transportation of one passenger by a defined mode of transport over a distance of one nautical mile. • Ton-kilometer (t.km): a unit of measurement which represents the transportation of one metric ton of goods (including packaging and tare weights of intermodal transport units), by a given transport mode over a distance of one kilometer. • Ton-mile (t.mile): a unit of measurement which represents the transportation of one metric ton of goods (including packaging and tare weights of intermodal transport units), by a given transport mode over a distance of one mile. • Ton-nautical mile (t.nautical mile): a unit of measurement which represents the transportation of one metric ton of goods (including packaging and tare weights of intermodal transport units), by a given transport mode over a distance of one nautical mile.
Example response	Worked example for calculating primary intensity metrics The example company is an automobile manufacturer which has annual sales of 2,653,900 vehicles in the reporting year (column 7). These units are categorized in the LDV category of this questionnaire (column 1). The company does not produce a significant number of vehicles in any of the other 4 categories. The expected lifetime of vehicles is 10 years (column 8) and annual kilometers expected for each vehicle are 15,000 km (column 9). The average emissions

per kilometer, which is a figure established as part of the vehicle certification, are 147 gCO_2e/v.km (or 0.000147 tCO_2e/v.km). The example company has established using research that 1.4 passengers is the average passenger figure for the territories in which it sells cars (column 10).

To get the emission intensity metric (column 2), a load factor must be applied that adjusts for the average number of passengers in the vehicle during its lifetime, which gives a final intensity figure of 0.000147 /1.4 = 0.000105 gCO_2e/p.km. This represents a reduction of 1.2% compared to last year (reported in column 11).

In this case, the actual Scope 3 category 11 emissions (metric nominator) and passenger-kilometers (metric denominator) are not needed for the calculation of the emission intensity metric, but they are nevertheless requested here for transparency.

To calculate their Scope 3 emissions in category 11, use of sold products, (column 3) the company multiplies the average emissions per vehicle-kilometer by the total number of all vehicle units sold in the reporting year (column 7) by the average annual distance in kilometers expected for each vehicle (column 9), and then multiplied by the average vehicle lifetime in years (column 8):

0.000147 tCO_2e/v.km x 2,653,900 vehicles x 15,000 km x 10 years = 58,518,495 tCO_2e.

Metric denominator (column 4), is derived by multiplying the number of vehicles sold (column 7) by total lifetime distance in km (column 8 and 9) by the load factor (reported in column 10):

2,653,900 x 10 x 15,000 x 1.4 = 557,319,000,000 p.km

Please see in the tables below how this information should be presented in the question 7.50.

7.50 Table part 1:

Activity	Emissions intensity figure	Metric numerator (Scope 3 emissions: use of sold products) in metric tons CO_2e	Metric denominator	Metric denominator: Unit total	% Change from previous year
LDV	0.000105	58,518,495	p.km	557,319,000,000	-1.2%

7.50

Table part 2:

	Vehicle unit sales in reporting year	Vehicle lifetime in years	Annual distance in km or miles (unit specified by column 4)	Load factor	Please explain the changes, and relevant standards/methodologies used?
	2,653,900	10	15,000	1.4	We have had a reduction of 1.2% in emission intensity compared to last year due to replacement of an old vehicle model with a new and more efficient version. We established using research from the European Environment Agency that 1.4 passengers is the average passenger figure for the territories in which we sell cars.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	TO

(7.51) What are your primary intensity (activity-based) metrics that are appropriate to your emissions from transport activities in Scope 1, 2, and 3?

Question details	
Change from last year	No change
Rationale	The metrics requested in this question allow measuring carbon efficiency of transportation directly, independent of size or distance. This makes comparison between organizations and different transport modes possible. Information collected in this question will enable your organization, as well as investors and data users, to compare your emissions' intensity over time and provide a more accurate measure of any improvements you are making.
Response options	Please complete the following table:

0	1	2	3	4	5	6	7
Activity	Scopes used for calculation of intensities	Intensity figure	Metric numerator: emissions in metric tons CO2e	Metric denominator: unit	Metric denominator: unit total	% change from previous year	Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.
LDV	Select from: • Report just Scope 1 • Report Scope 1 + 2 • Report Scope 1 + 2 + 3 (category 4)	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places]	Select from: • p.km • p.mile • t.km • t.mile	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from -999 to 999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]
HDV	Select from: • Report just Scope 1 • Report Scope 1 + 2						

	• Report Scope 1 + 2 + 3 (category 4)						
Rail	Select from: • Report just Scope 1 • Report Scope 1 + 2 • Report Scope 1 + 2 + 3 (category 4)						
Aviation	Select from: • Report just Scope 1 • Report Scope 1 + 2 • Report Scope 1 + 2 + 3 (category 4)						
Marine	Select from: • Report just Scope 1 • Report Scope 1 + 2 • Report Scope 1 + 2 + 3 (category 4)						
ALL	Select from: • Report just Scope 1 • Report Scope 1 + 2 • Report Scope 1 + 2 + 3 (category 4)						

Requested content	General
	
	• This question requests primary emissions intensity (activity-based) metrics of the average transport movements of your vehicles and the vehicles used in your supply chain. These are requested, normalized by the work done (number of passengers or the amount of goods (mass) moved, as well as distance.).
	• For each of the mode of transport applicable to your organization, please report your most relevant intensity metric. For freight transport, this means an intensity metric in tCO_2e per metric ton, per kilometer/mile (tCO_2e/t.km or t.mile). For passenger transport, this means an intensity metric in tCO_2e, per passenger, per kilometer/mile (tCO_2e/p.km or p.mile). The guidance will refer to the kilometer metric in further text, but these also apply to the corresponding metric in miles.
	• To calculate this metric for a particular transport mode and for all modes together, two main data points need to be gathered:
	  ○ The total tCO_2e (metric tons CO_2 equivalent) of emissions associated with transport movements by vehicles in a particular mode, such as heavy-duty vehicles (HDV).
	  ○ Ton-kilometer (or ton-mile) or passenger-kilometer (or passenger-mile). These metrics represent the transportation of persons or freight over the set distance of one km (or mile).
	  ○ For a more detailed breakdown of this metric, how to collect data and how to calculate it, please refer to the Technical Note on "Measuring the emissions intensity of transport movements". .
	• CDP recognizes that this method is not yet standardized across many industries, which may impact your ability to collect data on emissions and work done, between Scope 1, 2 and 3. In many cases it may be especially difficult to gather data for the relevant transport movements in Scope 3. Therefore, you are able to select your boundary in column 1 and report your specific coverage and reasons for exclusions in column 7.
	• This question follows the general framework of splitting emissions figures and intensities by transport mode. Complete this table for all transport modes present in your business operations. However, CDP recognizes that it may be difficult to account for emissions from your value chain for all modes of transport selected. Therefore, if you do not have specific enough data on the transport modes used in your supply chain for emissions in Scope 3: Category 4, you should at the least complete this table for the "ALL" category and calculate an emissions intensity figure for all transport modes together.
	
	Scopes used for calculation of intensities (column 1)
	
	• CDP recommends the calculation of an intensity figure derived from all three emission scopes (option "Report Scope 1 + 2 + 3 (category 4)").
	• CDP recognizes that organizations have differing levels of data quality and different levels of completeness of their emission inventories across Scopes 1, 2, and 3: Category 4. Therefore, you have an option to select the combination of scopes that corresponds to the information that is available to you.
	• Transport emissions that fall under your selected control boundary are reported under Scope 1+2. Transport emissions that fall outside of your selected control boundary are reported under Scope 3: Category 4: Upstream transportation and distribution.
	• Companies who are new to reporting an emission intensity figure are recommended to start with an intensity metric that includes their Scope 1 emissions, and possibly Scope 1+2 if your transport movements also include emissions from electricity use, through for example hybrid or full-electric vehicles.
	• To expand this reporting to include Scope 3: Category 4 Upstream transportation and distribution, you will need data from your transport service suppliers on both the activity

levels and the associated emissions. You may use the method proposed in the GLEC Framework, which will enable you to gain the information required for this metric for your Scope 3 emissions. See also the Technical Note on "Measuring the emissions intensity of transport movements" for an introduction to this methodology and guidelines to gathering the required data. for an introduction to this methodology and guidelines to gathering the required data.

- The main category for reporting Scope 3 emissions from transportation is category 4 (Upstream). Responders should be aware not to report their Scope 3 emissions from purchased transportation services under category 9: Downstream emissions and distribution. As the GHG Protocol Corporate Value Chain standard [page 47] explains:

> "Outbound transportation and distribution services that are purchased by the reporting company are excluded from category 9 and included in category 4 (Upstream transportation and distribution) because the reporting company purchases the service."

This applies to this question, as well as 7.8 (Scope 3 emissions).

- For carriers and logistics service providers, therefore the only relevant category for the calculation of Scope 3 emissions will generally be category 4. If you have specific emissions from your business model that fall within category 9, do not use data associated with this category for the calculation of intensities in this question.

- See the table below for an excerpt from the Corporate Value Chain Standard table [5.7] [page 45], that explains the differences between Scope 1+2, S3:4 and S3:9, and the reasoning why carriers and logistics service providers are recommended to use category 4.

Transportation and distribution activity in the value chain	Scope and scope 3 category
Transportation and distribution in vehicles and facilities owned or controlled by the reporting company	Scope 1 (for fuel use) or scope 2 (for electricity use)
Transportation and distribution services purchased by the reporting company in the reporting year (either directly or through an intermediary), including inbound logistics, outbound logistics (e.g., of sold products), and transportation and distribution between a company's own facilities (in vehicles and facilities not owned or controlled by the reporting company)	Scope 3, category 4 (Upstream transportation and distribution)
Transportation and distribution of products sold by the reporting company between the reporting company's operations and the end consumer (if not paid for by the reporting company), including	Scope 3, category 9 (Downstream transportation and distribution)

retail and storage (in vehicles and facilities not owned or controlled by the reporting company)	

Intensity figure (column 2)

- Enter the numerical value of the intensity metric most appropriate to your organization's products and/or services derived from the reported metric numerator (column 3) and metric denominator (column 5).

Metric numerator: emissions in metric tons CO_2e (column 3)

- Provide the total emissions figure for the activity (column 0) and scopes (column 1) selected, in metric tons CO_2e.
- Only report here emissions used to derive your intensity figure (in column 2).

Metric denominator (column 4)

- Select the most relevant metric denominator applicable to the transport mode you are reporting.

Metric denominator: Unit total (column 5)

- Enter the numerical value of the metric denominator selected in column 4, used to evaluate the emissions intensity figure presented (column 2).
- This will either be the total passenger-kilometers/miles (p.km or p.mile) or the total ton-kilometers/miles (t.km or t.mile).

% change from previous year (column 6)

- Report the % change from the previous year for the reported metric (column 2).
- If you have experienced no change, please enter 0 (zero) in this column.
- Leave the column blank if you do not have sufficient data to calculate the change from the previous year, or if this is the first year you have tracked this metric. Inserting a zero (0) in this column would suggest that you have compared your intensity to the 12-month period prior, and that the % change is equal to zero (0).
- The % change figure may be in part due to expansion of coverage towards previously excluded transport movements in your Scope 3 emissions. If this is the case, please explain this, and state the fraction of the percentage increase due to expansion of coverage in column 7.

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity. (column 7)

- Explain the metric that you are reporting, including:
    - Whether it covers all your vehicle types within the reported transport mode or only certain type(s),
    - State any assumptions made to disaggregate within this transport mode, and any reasons for reporting intensity metrics separately. For example, any assumptions made to breakdown the LDV transport mode into light commercial vehicles (LCV) or passenger light duty vehicles.

	• As mentioned above, full coverage of all relevant Scope 1+2+3: Category 4 emissions in these intensity metrics requires a lot of data and information on both emissions in tCO_2e, and transport activity in p.km or t.km. It is recognized that obtaining this information may prove challenging, and therefore companies are expected to have varying levels of coverage depending on how they have been able to engage with their supply chain. Therefore, please explain the following:
	  o If you have selected to report just Scope 1, or Scope 1+2 emissions intensities, please state the reason for not including any Scope 3 emissions in the calculation of your intensity metrics.
	  o If you are reporting Scope 1, 2, and 3 emissions, indicate the proportions of the total metric reported in column 5 that fall under Scope 1+2 or Scope 3, e.g. "45% of reported t.km were Scope 1+2 and 55% Scope 3."
	  o Please report the extent of exclusions in your coverage of transport emissions in the selected categories.
	  o It is recommended to report these exclusions based on the coverage of transport activity, not emissions. For example, if you have been able to collect, estimate or model 45% of all relevant purchased transport activity data that falls under the boundary of Scope 3: Category 4, report this information here.
	• Explain any reasons you have identified for changes in emissions intensity stated in column 6.
	• In addition to the most relevant metric for each transport mode that you are reporting in each row, you can report here any other metrics that you monitor. If you intend to do so, please clearly state these additional metrics and what types of vehicles they apply to, e.g. if your primary intensity metric that you reported for LDV mode is for light commercial vehicles (LCV) and you also wish to report any additional metrics relating to passenger light duty vehicles, please clearly state this.

Explanation of terms	• Carbon efficiency of transportation: The carbon efficiency of transportation, as defined by the GLEC framework, is the amount of carbon emitted by a carrier to complete a combination of tasks, e.g. transporting goods for one or more customers as efficiently as possible. • Primary intensity metric: This transport-specific intensity metric allows for the direct comparison of vehicle performance to climate-related scenarios. These metrics measure the efficiency of transportation based on the actual work being done. The amount of work done comprises the goods and/or passengers moved and the effective distance that these goods/passengers are moved, from origin to destination. For the organization, the efficiency of total work done is determined by combining the total of transported units and the distance driven with these units. The standard unit is metric ton of CO_2e per ton-kilometer or passenger-kilometer. • GLEC Framework: The Global Logistics Emissions Council (GLEC) Framework is a universal and transparent way of calculating logistics emissions across the global multi-modal supply chain. The GLEC Framework aims to allow companies to understand their carbon footprints, alongside costs and time to decide the best way to transport their goods. • Metric tons of CO_2-equivalent (tCO_2e): a metric that allows for other Greenhouse Gases (GHGs) to be expressed in relation to CO_2 based on their Global Warming Potentials (GWPs). A metric ton is 1000 kg, equivalent to 2204.62 lbs. • Passenger-kilometer (p.km): a unit of measurement which represents the transportation of one passenger by a defined mode of transport over a distance of one kilometer.

	• Passenger-mile (p.mile): a unit of measurement which represents the transportation of one passenger by a defined mode of transport over a distance of one mile. • Ton-kilometer (t.km): a unit of measurement which represents the transportation of one metric ton of goods (including packaging and tare weights of intermodal transport units), by a given transport mode over a distance of one kilometer. • Ton-mile (t.mile): a unit of measurement which represents the transportation of one metric ton of goods (including packaging and tare weights of intermodal transport units), by a given transport mode over a distance of one mile.
Additional information	Global Logistics Emissions Council framework For the guidance on calculating these metrics, you may wish to consider the GLEC (Global Logistics Emissions Council) framework for logistics emissions accounting. This is a global framework that seeks to combine many existing standards and present a unified and globally comparable metric for logistics emissions accounting. Many concepts and recommendations in this guidance have been based on the GLEC measurement framework. Companies who have already adopted the GLEC framework should find many alignments with their output and the data requested in this question.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	TS

Other climate-related metrics

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

Question details	
Change from last year	No change
Rationale	CDP data users seek to understand in which areas, beyond GHG emissions, companies are trying to reduce their environmental impacts.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3	4	5	6	7
Description	Metric value	Metric numerator	Metric denominator (intensity metric only)	% change from previous year	Direction of change	Please explain
Select from: • Waste;	Numerical field [enter a number from 0 to	Text field [maximum 50 characters]	Text field [maximum 50 characters]	Numerical field [enter a number from 0 to 999	Select from: • Increased • Decreased	Text field [maximum

• Energy usage; • Land use; • Other, please specify	99,999,999,999 using up to 2 decimal places and no commas]			using up to 2 decimal places and no commas]	• No change	2,400 characters

[Add row]

Requested content	General • Complete the table to report any additional climate-related metrics your business tracks beyond emissions reductions and renewable energy-related activities. • If you track more than one additional climate-related metric, describe them each in a separate row. Description (column 1) • Select the type of metric applicable to your business. If none of the listed drop-downs apply, select "Other, please specify" and provide a label for the "Description". Metric value (column 2) • Enter the quantity of the unit tracked and reported in column 3. E.g. if your company tracks kilograms of waste, enter the kilograms measured during the reporting year. • When providing an intensity metric, provide the value of the intensity. E.g. if your companies tracks kilograms of waste per FTE, enter the kilograms measured during the reporting year normalized to the number of FTE in the reporting year. Metric numerator (column 3) • Enter the unit of the metric that your company tracks. This unit corresponds to the value entered in column 2. Metric denominator (column 4) • This column is only applicable for companies tracking an intensity metric (e.g., kilograms of waste per FTE). If you do not track an intensity metric, leave this column blank. % Change from previous year (column 5) • If you have experienced no change, please enter 0 (zero) in this column. • The previous year compared should apply to the 12-month period directly prior to the reporting period, even if it does not completely overlap with the period previously reported to CDP. It is understood that this metric has not been reported to CDP before and thus the reporting year for this metric may not directly overlap with other metrics reported to CDP. • Leave the column blank if this is the first year you have tracked this metric. Direction of change (column 6) • Use this column to outline the direction of change from the previous year. • A declining intensity ratio reflects a positive direction of change. E.g. your waste last reporting year was 10 metric tons/FTE and this year is 5 metric tons/FTE. This indicates a 50% decrease compared to the previous year.

	• If the percentage change from last year is 0 (zero) or you do not have sufficient data to calculate the change then select "no change." Please explain (column 7) • Use this column to provide any additional context relevant to the metric you are reporting and to the direction of change. Additional information could include projects or initiatives implemented to achieve progress on this metric, or any timeframes included in these goals.
Requested content – [sector]	Note for agricultural sectors: • You should report data associated with the business activity areas that are relevant to your organization, as indicated in 1.11. Note that these metrics should be in addition to what you have reported previously in module 7 (Emissions data/ Emissions breakdown). For example, if agricultural/forestry activities are relevant to your disclosure, you could report here the area of land use change associated with your own farm or production unit. Other examples of relevant metrics are: the volume of fertilizers used for production; the consumption of water per unit of product during production, processing and/or manufacturing; the waste volume associated with the production of raw materials or the manufacture of goods; and the volume of biofuels used in the fleet.
Explanation of terms	• Land use: Land use is based on the functional dimension of land for different human purposes or economic activities. Typical categories for land use are dwellings, industrial use, transport, recreational use or nature protection areas. Additional land use metrics can relate to the climate-related arrangements, activities, and inputs regarding these categories that organizations engage in, and can include land use change and land use management metrics.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

Targets

Section Overview	This section focuses on emissions and low-carbon energy targets, additional climate-related targets, and net-zero targets. Target setting provides direction and structure to environmental strategy. Providing information on quantitative targets and qualitative goals, and progress made against these targets, can demonstrate your organization's commitment to improving climate-related issues management at a corporate level. This information is relevant to investors' understanding of how your organization is addressing and monitoring progress regarding the risks and opportunities disclosed.

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

Question details	
Change from last year	No change
Rationale	Target setting provides direction and structure to environmental strategy. CDP data users want to understand companies' commitments to reducing emissions and whether the organization has a goal towards which they are harmonizing and focusing emissions-related efforts.
Response options	Select all that apply: • Absolute target • Intensity target • Portfolio target [FS only] • No target

Requested content	General
	• Targets that are based on a future "business as usual" year are not equivalent to emissions reduction targets and therefore should not be reported here. Acceptable targets must determine emissions reductions through comparison to a set base year in the past, not to a projected "business as usual" emissions figure in the future.
	• You have an "active target" if the target ends in or after the reporting year <u>and</u> the target is to reduce absolute emissions or emissions intensity.
	  ○ Absolute target: an absolute target describes a reduction in actual emissions in a future year when compared to a base year. The target can relate to your Scope 1, Scope 2 and/or Scope 3 emissions in full or in part.
	  ○ Intensity target: an intensity target describes a future reduction in emissions that have been normalized to a business metric when compared to the same normalized business metric emissions in a base year. The target can relate to your Scope 1, Scope 2 and/or Scope 3 emissions in full or in part.
	  ○ For Financial Services organizations – Portfolio target: a portfolio target describes a reduction of the impact of your lending, investment and/or insurance underwriting portfolios (e.g. portfolio emissions) on the climate.
	• If you are a financial services discloser, financial institutions should select "Absolute target" and "Intensity target" only for targets which relate to their operational emissions, i.e. Scope 1, Scope 2 and Scope 3 emissions excluding Category 15 Investments.

Requested content – [sector] (if applicable)	Note for oil and gas sector companies: • Investors request that companies disclose both company-wide targets and targets at the divisional level. Note for electric utility sector companies: • Investors request that companies disclose company-wide targets and, where applicable, at divisional level, and that intensity targets are also expressed as absolute targets where possible. Note for transport OEMs sector companies:

	• In addition to any absolute targets, companies should disclose company-wide CO_2 and/or fuel economy targets for products and, where relevant, for specific markets. Targets should be expressed in grams of CO_2 per kilometer. Note for financial services sector companies: • Select "Absolute target" or "Intensity target" only if you have any climate targets covering your operational emissions, i.e. Scope 1, Scope 2 and Scope 3 emissions excluding Category 15 Investments. Select "Portfolio target" for any other climate target types related to your lending, investment and insurance portfolios. Note for capital goods sector companies: • Companies should consider reporting company-wide and/or product-level Scope 3 targets, and in particular, Scope 3 targets relating to the use of sold products.
Additional information	Examples of emissions reduction targets The following are examples of absolute targets: • Metric tons CO_2e or % reduction from base year • Metric tons CO_2e or % reduction in product use phase relative to base year • Metric tons CO_2e or % reduction in supply chain relative to base year • Metric tons CO_2e or % reduction per year • Metric tons CO_2e or % reduction relative to 5 year rolling average of emissions • Cap on emissions in metric tons CO_2e The following are examples of intensity targets: • Metric tons CO_2e or % reduction per unit revenue (also per unit turnover; per unit gross sales) relative to base year • Metric tons CO_2e or % reduction per full-time employee equivalent (also per hours worked; per operating hour; per guest night; per capita; per patient days) relative to base year • Metric tons CO_2e or % reduction per unit of product (e.g. metric ton of paper; metric ton of aluminum) relative to base year • Metric tons CO_2e or % reduction per passenger kilometer (also per km; per nautical mile) relative to base year • Metric tons CO_2e or % reduction per square foot relative to base year • Cap on emissions relative to an activity (e.g. stabilizing emissions at x metric tons CO_2e per metric to of steel produced) • Metric tons CO_2e or % reduction per MWh • Metric tons CO_2e or % reduction in emissions from business flights per employee

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.53.1) Provide details of your absolute emissions targets and progress made against those targets.

Question details	
Question dependencies	• This question only appears if you select “Absolute target” in response to 7.53.
Change from last year	• Minor change
Rationale	Target setting plays a vital role in environmental action through its role in the successful execution of corporate strategies, as well as in the effective management of dependencies, impacts, risks, and opportunities. The question encourages organizations to set and make progress towards timebound, tracked, quantitative targets, informed by the guidance of leading initiatives and frameworks, such as the Science Based Targets initiative where available.
Ambition	Organizations make progress against emissions targets that reflect their full emissions inventory and are in line with the Science Based Targets initiative (SBTi) criteria.
Response options	• Please complete the following table. The table is displayed over several rows for readability. You are able to add rows by using the “Add Row” function at the bottom of the table.

1	2	3	4	5	6	7
Target reference number	Is this a science-based target?	Science Based Targets initiative official validation letter	Target ambition	Date target was set	Target coverage	Greenhouse gases covered by target
Abs1-Abs100	Select from: • Yes, and this target has been approved by the Science Based Targets initiative • Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative • Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years • Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years • No, but we are reporting another target that is science-based • No, but we anticipate setting one in the next two years • No, and we do not anticipate setting one in the next two years	[Attachment(s)]	Select from: • 1.5°C aligned • Well-below 2°C aligned • 2°C aligned • Other, please specify	[DD/MM/YYYY] between 01/01/1900 and 19/11/2025	Select from: • Organization-wide • Business division • Business activity • Site/facility • Country/area/region • Product-level • Other, please specify	Select all that apply: • Carbon dioxide (CO2) • Methane (CH4) • Nitrous oxide (N2O) • Hydrofluorocarbons (HFCs) • Perfluorocarbons (PFCs) • Sulphur hexafluoride (SF6) • Nitrogen trifluoride (NF3)

8	9	10	11	12	13	14-30
Scopes	Scope 2 accounting method	Scope 3 categories	End date of base year	Base year Scope 1 emissions covered by target (metric tons CO2e)	Base year Scope 2 emissions covered by target (metric tons CO2e)	Base year Scope 3, Category […] emissions covered by target (metric tons CO2e) [One column for each Scope 3 category]
Select all that apply:	Select from:	Select all that apply: • Category 1: Purchased goods and services	[DD/MM/YYYY] between	Numerical field [enter a number from 0-999,999,999,999 using a	Numerical field [enter a number from 0-999,999,999,999 using a	Numerical field [enter a number from 0-999,999,999,999 using a

• Scope 1 • Scope 2 • Scope 3	• Location-based • Market-based	• Category 2: Capital goods • Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) • Category 4: Upstream transportation and distribution • Category 5: Waste generated in operations • Category 6: Business travel • Category 7: Employee commuting • Category 8: Upstream leased assets • Category 9: Downstream transportation and distribution • Category 10: Processing of sold products • Category 11: Use of sold products • Category 12: End-of-life treatment of sold products • Category 13: Downstream leased assets • Category 14: Franchises • Category 15: Investments [does not appear to FS] • Other (upstream) • Other (downstream)	01/01/1900 and 19/11/2025	maximum of 3 decimal places and no commas]	maximum of 3 decimal places and no commas]	maximum of 3 decimal places and no commas]

31	32	33	34	35-51	52	53
Base year total Scope 3 emissions covered by target (metric tons CO2e)	Total base year emissions covered by target in all selected Scopes (metric tons CO2e)	Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1	Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2	Base year Scope 3, Category […] emissions covered by target as % of total base year emissions in Scope 3, Category […] (metric	Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope	Base year emissions covered by target in all selected Scopes as % of total base year

[auto-calculated]	[auto-calculated]			tons CO2e) [One column for each Scope 3 category]	3 (in all Scope 3 categories)	emissions in all selected Scopes
Numerical field [0-999,999,999,999]	Numerical field [0-999,999,999,999] 3 decimal places	Percentage field [enter a percentage from 0-100 using a maximum of 3 decimal places]	Percentage field [enter a percentage from 0-100 using a maximum of 3 decimal places]	Percentage field [enter a percentage from 0-100 using a maximum of 3 decimal places]	Percentage field [enter a percentage from 0-100 using a maximum of 3 decimal places]	Percentage field [enter a percentage from 0-100 using a maximum of 3 decimal places]

54	55	56	57	58	59-75	76
End date of target	Targeted reduction from base year (%)	Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]	Scope 1 emissions in reporting year covered by target (metric tons CO2e)	Scope 2 emissions in reporting year covered by target (metric tons CO2e)	Scope 3, Category […] emissions in reporting year covered by target (metric tons CO2e) [One column for each Scope 3 category]	Total Scope 3 emissions in reporting year covered by target (metric tons CO2e) [auto-calculated]
[DD/MM/YYYY] between 19/11/2020 and 31/12/2100	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Numerical field [0-999,999,999,999]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numerical field [0-999,999,999,999]

77	78	79	80	81	82	83
Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e) [auto-calculated]	Land-related emissions covered by target	% of target achieved relative to base year [auto-calculated]	Target status in reporting year	Explain the reasons for the revision, replacement, or retirement of the target	Explain target coverage and identify any exclusions	Target objective
Numerical field [0-999,999,999,999]	Select from: • Yes, it covers land-related emissions only (e.g. FLAG SBT)	Percentage field	Select from: • New • Underway • Achieved	Text field [maximum 2,500 characters	Text field [maximum 2,500 characters]	Text field [maximum 1,500 characters]

	• Yes, it covers land-related and non-land related emissions (e.g. SBT approved before the release of FLAG target-setting guidance) • Yes, it covers land-related emissions/removals associated with bioenergy and non-land related emissions (e.g. non-FLAG SBT with bioenergy) • No, it does not cover any land-related emissions (e.g. non-FLAG SBT)		• Achieved and maintained • Expired • Revised • Replaced • Retired			

84	85	86
Plan for achieving target, and progress made to the end of the reporting year	Target derived using a sectoral decarbonization approach	List the emissions reduction initiatives which contribute most to achieving this target
Text field [maximum 2,500 characters]	Select from: • Yes • No	Text field [maximum 2,500 characters]

[Add row]

Requested content	General • Note that CDP is requesting data on gross emissions targets. Gross means total emissions before any deductions or other adjustments are made to take account of offset credits, avoided emissions, and/or reductions attributable to the sequestration or transfer of GHGs (except in a specific case of bioenergy use for science-based targets and SBTi-approved FLAG targets, which include both emissions and removals from land – see "Additional information" for more details). • If you have a target that will be met in part by offsetting (including carbon neutrality targets), or CO2 removals except for the bioenergy and SBTi-approved FLAG target cases specified in "Additional information", only the proportion of the target that relates to emissions reductions (and not offset purchases or CO2 removals) should be reported here. If you are uncertain of the proportion that will be achieved through emissions reductions, make an estimation based on the initiatives that you have in place or planned. • Targets to reduce emissions in the product use phase or to reduce emissions from the value chain should be captured as Scope 3 targets. • If the details of your target differ between the Scopes (e.g. if the temperature alignment of your Scope 1+2 target is consistent with a 1.5°C-aligned pathway and the temperature alignment of your Scope 3 target is consistent with a well-below 2°C-aligned pathway), report separate rows for the Scope(s) for which the target differs. • You may also use this question to report targets to maintain your emissions at a stable level. To correctly report the progress against a maintenance target, i.e. a target to maintain the level of performance achieved by a previous target (e.g. "an organization-wide target to maintain a 90% absolute reduction in scope 1 & 2 GHG emissions"), you should treat it as a target to be met every year. In this case, "base year" corresponds to the base year of the emissions reduction target that is being maintained, and "target year" corresponds to the reporting year. • If you have interim targets, use the "Add Row" function to provide details about them separately. • If you intend to report a net-zero target in 7.54.3, you should report both the near-term and long-term emissions reduction target(s) associated with your net-zero target either in this question or in 7.53.2 and link them to your net zero target in column 4 "Targets linked to this net zero targets" of 7.54.3. Please refer to the SBTi Net-Zero Standard for information on science-based net-zero targets. • If disclosing as a financial services company, financial institutions should report their portfolio targets, i.e. targets on scope 3 category 15, in 7.53.4. Absolute emissions targets related to portfolio activities are therefore reported in 7.53.4. Any other absolute emissions targets set by financial institutions should be reported in this question. Target reference number (column 1) • Select a unique target reference from the drop-down menu provided to identify the target in subsequent questions and to track progress against the target in subsequent reporting years. • If you reported a target to CDP last year and will be reporting progress against the same target this year, ensure you use the same target reference number as last year. For any new targets you are adding, always use a new reference number that you have not used previously. Is this a science-based target? (column 2) • A brief description of science-based targets and why CDP is asking companies to set them is provided as additional information to this question.

	• In addition, refer to the CDP Technical Note on Science-Based Targets for what qualifies as a science-based target and how to assess your target against the Science Based Targets initiative's criteria. • Companies with activities in the oil and gas sector for which there is no available sector methodology to determine whether a target is science-based should select the most appropriate "No…" option in this column. For more information on sector-specific requirements, see pages 14-22 of the SBTi Criteria. • Yes, and this target has been approved by the Science Based Targets initiative – Companies are very strongly encouraged to have their targets officially evaluated by the Science Based Targets initiative (SBTi). CDP considers targets approved by the initiative to reflect best practice in science-based target setting. Select this option only if the target has been approved by the SBTi. • Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative – If your company has set a target and has self-assessed it to be science-based, it has been submitted to the SBTi for validation and is currently being reviewed by the SBTi, you should select this option. You should use column 82 "Explain target coverage and identify any exclusions" to explain why you consider your target to be science-based. • Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years – Not all companies have had their target assessed by the SBTi. If your company has set a target and has self-assessed it to be science-based but has not yet submitted it to the SBTi for validation, you should select this option. You should use column 82 "Explain target coverage and identify any exclusions" to explain why you consider your target to be science-based. If you are currently in the process of revising your target to meet SBTi criteria, indicate this by selecting "No, but we anticipate setting one in the next two years. • Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years – Not all companies intend to have their target assessed by the SBTi. If your company has set a target and has self-assessed it to be science-based but has not committed to submit it to the SBTi for validation, you should select this option. You should use column 82 "Explain target coverage and identify any exclusions" to explain why you consider your target to be science-based. If you are a supplier to a company with a supplier engagement target, as part of which you have set a target in line with SBTi resources but are not planning to seek SBTi approval, select this option. • No, but we are reporting another target that is science-based – Another target (absolute or intensity) disclosed is science-based, either in another row in this table, or in 7.53.2. • No, but we anticipate setting one in the next two years – While not necessary, it is recommended that the company publicly state this by submitting a Science Based Target initiative commitment letter. • No, and we do not anticipate setting one in the next two years – No science-based targets have been set and there are no plans in place to set one in the next two years. Science Based Targets initiative official validation letter (column 3) • This column only appears if you select "Yes, and this target has been approved by the Science Based Targets initiative" in column 2 "Is this a science-based target?". • Attach your Science Based Targets initiative (SBTi) validation letter. Target ambition (column 4)

	• This column only appears if you select any "Yes" option in column 2 "Is this a science-based target?". • Select the level of ambition of your science-based target. Note that as of July 2022, the SBTi requires Scope 1 and 2 targets to be consistent with the level of decarbonization required to keep global temperature increase to 1.5°C compared to pre-industrial temperatures, and Scope 3 targets to be aligned with methods consistent with the level of decarbonization required to keep global temperature increase to well-below 2°C compared to pre-industrial temperatures. • If your target is aligned with below 1.5°C compared to pre-industrial temperature temperatures, select "1.5°C aligned". Date target was set (column 5) • Enter the date on which your company set the target. • This must be either before or during the reporting year but cannot be after the reporting year or after the end date of the. • If the target is science-based and has been submitted to the SBTi for validation or revalidation, enter the date on which your organization submitted the target for validation or revalidation by the SBTi. • If you have a year-on-year rolling target, enter the date on which your company first set the target. This can be before the base year. • If you set the target based on financial years, enter the date that applies to the end of your financial year and specify this in column 82 "Explain target coverage and identify any exclusions". • If you do not know the exact date on which your company set the target, enter the end of the year that the target was set. Target coverage (column 6) • If the target applies to the whole organization, select "Organization-wide". Note that "organization" refers collectively to all the companies, businesses, organizations, other entities or groups that fall within your definition of the reporting boundary. • It is considered best practice to report one overarching target covering total company-wide Scope 1 and 2 emissions. Sub-targets may also be reported in additional rows. • If the target does not apply to the whole organization, select the option that best describes the coverage of the target, and provide further details in column 82 "Explain target coverage and identify any exclusions". E.g. if your target applies only to your European operations, select "Country/area/region" in this column and specify the country/area/region in column 82 "Explain target coverage and identify any exclusions". Greenhouse gases covered by target (column 7) • Select all the greenhouse gases which are relevant to your organization and included in the target. • This column includes the seven greenhouse gases covered by the Kyoto Protocol. For further information on the different greenhouse gases, see the GHG Protocol Corporate Standard Amendment. If the target has been approved by the SBTi, the gases reported should match those which were reported to the SBTi. Scopes (column 8)

- This refers to the scopes of emissions to which the target relates. Note that the target does not have to comprise all emissions within a particular scope.
- If the target being reported has been validated by the SBTi, the scopes (scope 1, 2 and 3 emissions, and scope 3 categories) reported and their coverage should match that which has been reported to the SBTi.

Scope 2 accounting method (column 9)

- This column only appears if you select "scope 2" in column 8 "Scopes".
- Indicate whether the target relates to your location-based or market-based Scope 2 emissions.

Scope 3 categories (column 10)

- This column only appears if you "select "Scope 3" in column 8 "Scopes".
- Select the Scope 3 emissions categories that relate to this target.
- For each Scope 3 category selected in this column, a corresponding column will appear for you to provide the category's emissions in the base year (columns 14-31), % of total base year emissions covered (columns 35-51) and emissions in the reporting year (columns 59-75).
- The categories of Scope 3 emissions have been taken from the Greenhouse Gas Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Refer to the Standard for additional information on the sources that each category comprises and how to calculate these emissions. If you are specifying a Scope 3 source under "Other, please specify" please make it clear whether it is an upstream or downstream source.

End date of base year (column 11)

- The base year is the year against which you are comparing your absolute emissions.
- The base year cannot be after the reporting year.
- If you have a year-on-year rolling target, the end date of the base year will be within the previous reporting year.
- As per the GHG Protocol (p. 79), it is recommended to use the same base year for your targets as the base year of your emissions inventory as reported in 7.5. See SBTi criteria for relevant considerations for selecting a science-based target base year.
- If you have a maintenance target to maintain a certain level of performance (e.g. to maintain a 90% reduction in emissions from the base year), the end date of the base year will be the same as the end date of the base year of the target that is being maintained. If you did not have an absolute reduction target that is being maintained, your base year will be the current reporting year.
- If you have a target based on financial years, enter the date that applies to the end of your financial year and specify this in column 82 "Explain target coverage and identify any exclusions".
- If you have a target based on average emissions over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify this in column 82 "Explain target coverage and identify any exclusions".

Base year Scope 1 emissions covered by target (metric tons CO2e) (column 12)

- This column only appears if you select "Scope 1" in column 8 "Scopes".
- If the target encompasses multiple Scopes, this figure should be based upon the Scope 1 proportion only. E.g. if your target is to reduce Scope 1+2 emissions arising from your European operations, enter the base year Scope 1 emissions for your European operations in this column.

	Base year Scope 2 emissions covered by target (metric tons CO2e) (column 13) • This column only appears if you select "Scope 2" in column 8 "Scopes". • If the target encompasses multiple Scopes, this figure should be based upon the Scope 2 proportion only. • E.g. if your target relates to Scope 1+2+3 organization-wide emissions, enter your Scope 2 organization-wide base year emissions in this column. Base year Scope 3, Category […] emissions covered by target (metric tons CO2e) (columns 14-30) • A column will appear for each Scope 3 category selected in column 10 "Scope 3 categories". Base year total Scope 3 emissions covered by target (metric tons CO2e) [auto-calculated] (column 31) • This column only appears if you select "Scope 3" in column 8 "Scopes". • This column will be auto-calculated as the sum of each "Base year Scope 3, Category […] emissions covered by target (metric tons CO2e)" column which appears. • This figure shows the total Scope 3 base year emissions covered by the target for the Scope 3 categories selected in column 10 "Scope 3 categories". Total base year emissions covered by target in all selected scopes (metric tons CO2e) [auto-calculated] (column 32) • This column will be auto-calculated as the sum of columns 12 "Base year Scope 1 emissions covered by target", 13 "Base year Scope 2 emissions covered by target" and 31 "Base year total Scope 3 emissions covered by target". Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1 (column 33) • This column only appears if you select "Scope 1" in column 8 "Scopes". • Enter the base year Scope 1 emissions covered by the target (reported in column 12) as a percentage of your total organization-wide base year emissions in Scope 1. • If the target encompasses multiple Scopes, this percentage should be based upon the Scope 1 proportion only. • E.g. if your target is to reduce Scope 1+2 emissions arising from your European operations, and the Scope 1 emissions from your European operations accounted for 80% of your total, v-wide Scope 1 emissions in the base year, then you should enter 80 into this column. • Note that entering a value of 100% indicates that the target covers your company's total, global gross emissions in the base year for Scope 1. Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2 (column 34) • This column only appears if you select "Scope 2" in column 8 "Scopes". • Enter the base year Scope 2 emissions covered by the target (reported in column 13) as a percentage of your total organization-wide base year emissions in Scope 2. • If the target encompasses multiple Scopes, this percentage should be based upon the Scope 2 proportion only. • E.g. if your target relates to Scope 1+2+3 emissions of a particular business activity (e.g. office-based operations, etc.), and the Scope 2 emissions from that business activity

	accounted for 20% your total, organization-wide Scope 2 emissions in the base year, then you should enter 20 into this column. • Note that entering a value of 100% indicates that the target covers your company's total, global gross emissions in the base year for Scope 2. Base year Scope 3, Category […] emissions covered by target as % of total base year emissions in Scope 3, Category […] (metric tons CO2e) (column 35-51) • A column will appear for each Scope 3 category selected in column 10 "Scope 3 categories". • Enter the base year Scope 3 category emissions covered by the target (reported in columns 14-30) as a percentage of your total company-wide base year emissions in that Scope 3 category. • E.g. if your target covers the Scope 3 Category 1 emissions of one region which accounts for 50% of your total base year Scope 3 emissions in Category 1, enter "50". Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 Categories) (column 52) • This column only appears if you select "Scope 3" in column 8 "Scopes". • Enter the base year Scope 3 emissions covered by the target (reported in column 31) as a percentage of your total organization-wide base year emissions for all Scope 3 categories calculated in the base year. • E.g. If you have selected only one Scope 3 category in column 10 (e.g. "Business travel"), you should enter the base year emissions in that category covered by the target as a percentage of your total base year Scope 3 emissions as a whole. • If the target encompasses multiple Scopes, this percentage should be based upon the Scope 3 proportion only. • Note that entering a value of 100% indicates that the target covers your company's total, global gross emissions in the base year for Scope 3. Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes (column 53) • Enter the total base year emissions covered by the target (reported in column 32) as a percentage of your total organization-wide base year emissions in all Scopes selected in column 8 "Scopes". • If the target encompasses multiple Scopes, note that you should not sum the percentages reported in 33, 34 and/or 52. • E.g. if your target relates to Scope 1+2+3 emissions for your UK operations, and the Scope 1+2+3 emissions from your UK operations accounted for 10% your total, organization-wide Scope 1+2+3 emissions in the base year, then you should enter 10 into this column. • If the target relates to a single Scope, this figure will be the same as the figure reported in either column 33, column 34, or column 52. • Note that entering a value of 100% indicates that the target covers your company's total, global gross emissions in the base year for all Scopes selected in column 8. End date of target (column 54) • Enter the date that the target ends. For example, if the target is to reduce emissions by 50% by the end of 2030, the end date of the target is 31st December 2030. • If you have a year-on-year rolling target or an active maintenance target, the end date of the target will be within the reporting year.

	• If you have a long-term maintenance target that will begin once you have achieved your near-term emissions reduction target, the end date of the target will be the end date of the near-term target that you will be maintaining. • If you have a target based on financial years, enter the date that applies to the end of your financial year and specify in column 82 “Explain target coverage and identify any exclusions”. • If you have a target based on average emissions over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify this in column 82 “Explain target coverage and identify any exclusions”. • You should not report any target that was achieved before the start of the reporting year. Targeted reduction from base year (%) (column 55) • Enter your targeted emissions reduction as a percentage reduction in emissions in all Scopes relevant to the target to be achieved in the target year, when compared to the base year. • Note this column is to capture the percentage target reduction you have set to be achieved between the base year and the target year. • E.g. if your target is to reduce your Scope 1+2 emissions by 3000 metric tons CO2e and your base year Scope 1+2 emissions were 150,000 metric tons CO2e, you should enter 2 into this column (i.e. (3000/150000)=0.02; then multiply by 100 for percentage value). • If you are reporting a maintenance target, you should enter the same targeted reduction as the target that is being maintained. E.g., if your original target was to achieve a 90% reduction in emissions from the base year, enter 90 here. If your target is to maintain emissions at the base year level, you should enter 0 in this column. Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e) [auto-calculated] (column 56) • This column will be auto-calculated. • The total emissions at the end date of your covered by the target will be calculated from the “Total base year emissions covered by target in all selected Scopes” (column 32) and the “Targeted reduction from base year” (column 55) columns. Ensure that you have entered data into these columns. • ((100- “Targeted reduction from base year (%)”) / 100) X "Total base year emissions covered by target in all selected Scopes (metric tons CO2e)” • E.g. if your base year emissions were 150,000 metric tons CO2e, and your targeted reduction is 2%, this column will display 147,000. Scope 1 emissions in reporting year covered by target (metric tons CO2e) (column 57) • This column only appears if you select “Scope 1” in column 8 “Scopes”. • If the target encompasses multiple Scopes, this figure should be based upon the Scope 1 proportion only. • E.g., if your target is to reduce Scope 1+2 emissions arising from your European operations, enter the Scope 1 emissions in the reporting year for your European operations in this column. Scope 2 emissions in reporting year covered by target (metric tons CO2e) (column 58) • This column only appears if you select “Scope 2” in column 8 “Scopes”. • If the target encompasses multiple Scopes, this figure should be based upon the Scope 2 proportion only. • E.g., if your target relates to Scope 1+2+3 organization-wide emissions, enter your Scope 2 organization-wide emissions in the reporting year in this column.

	Scope 3, Category […] emissions in reporting year covered by target (metric tons CO2e) [One column for each Scope 3 category] (column 59-75) • A column will appear for each Scope 3 category selected in column 10 "Scope 3 categories". • Note that emissions for all Scope 3 categories covered by a target should be reported every year. Total Scope 3 emissions in reporting year covered by target (metric tons CO2e) [auto-calculated] (column 76) • This column only appears if you select "Scope 3" in column 8 "Scopes". This column will be auto-calculated as the sum of each "Base year Scope 3, Category […] emissions covered by target (metric tons CO2e)" column which appears. Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e) [auto-calculated] (column 77) • This column will be auto-calculated as the sum of columns "Scope 1 emissions in reporting year covered by target (metric tons CO2e)", "Scope 2 emissions in reporting year covered by target (metric tons CO2e)", and "Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)"If the target relates to a single Scope, this figure will be the same as the figure reported in either column 57, column 58, or column 76. • If the target encompasses multiple Scopes, this figure will be equal to the sum of the figures reported in columns 57, 58 and/or 76. Land-related emissions covered by target (column 78) • A brief description of land-related emissions (i.e., GHG emissions from Agriculture, Forestry and Other Land Use (AFOLU)) is provided as additional information to this question. • In addition, refer to the CDP Technical Note on Science-Based Targets for further detail and how to assess your target against the Science Based Targets initiative's criteria. • Yes, it covers land-related emissions only (e.g. FLAG SBT) – Select this option if your target only covers GHG emissions related to land and agriculture and excludes emissions and removals associated with bioenergy, in line with SBTi guidance. Companies that have followed the SBTi Forests, Land and Agriculture (FLAG) guidance to set their target should select this option. This option will primarily be applicable to companies in the Agricultural Commodities, Food, Beverage & Tobacco, and Paper & Forestry CDP sectors. • Yes, it covers land-related and non-land related emissions (e.g. SBT approved before the release of FLAG target-setting guidance) – Select this option if your target covers both GHG emissions related to land and agriculture and non-land related emissions from energy/industry. This option will be primarily applicable to companies in the Agricultural Commodities, Food, Beverage & Tobacco and Paper and Forestry CDP sectors whose target was approved by the SBTi before the release of the SBTi FLAG target-setting guidance. • Yes, it covers land-related emissions/removals associated with bioenergy and non-land related emissions (e.g. non-FLAG SBT with bioenergy) – Select this option if your target covers GHG emissions from the combustion, processing and distribution phase of bioenergy and/or land use emissions and removals associated with bioenergy feedstocks, in addition to non-land related emissions from energy/industry. This option could apply to companies in any CDP sector with a target that includes emissions from bioenergy. • No, it does not cover any land-related emissions (e.g. non-FLAG SBT) – Select this option if your target only covers non-land related emissions from energy/industry.

	• If you select any "Yes…" option, specify the types of land-related emissions covered by the target in column 82 "Explain target coverage and identify any exclusions". % of target achieved relative to base year [auto-calculated] (column 79) • This column will be auto-calculated according to the following formula. Ensure that you have entered data into these column: • (Total base year emissions covered by target in all selected Scopes - Total emissions in reporting year covered by target in all selected Scopes)*100/(Total base year emissions covered by target in all selected Scopes*Targeted reduction from base year (%)/100) • E.g. if your target is to reduce your Scope 1 emissions by 10% and in the reporting year your Scope 1 emissions had reduced by 3% compared to the base year, this column will display 30 as your target is 30% complete. • Negative values indicate an increase in emissions relative to the base year. • Values greater than 100 indicate that you have exceeded your target. • This column will not appear if you set a target to maintain your greenhouse gas emissions at the base year level, i.e. if you have entered 0 (zero) in column "Targeted reduction from base year (%)" (column 55). Target status in reporting year (column 80) • New – Select this option for targets that have been set in the reporting year and are still in progress. • Underway – Select this option for targets that were set before the reporting year, with an end date in the future, that have not been achieved and continue to be pursued. • Achieved – Select this option for targets that have been achieved or exceeded in the reporting year. • Achieved and maintained – Select this option for targets that are in place to maintain a certain level of performance (e.g., to maintain a 90% reduction of emissions from the base year) and this has been achieved in the reporting year. • Expired – Select this option for targets with an end date within the reporting year, that have not been achieved or maintained and have therefore expired in the reporting year. • Revised – Select this option for targets that were set before the reporting year, but a revision has been made to any of the elements in columns 2 to 78 in the reporting year, for example due to a recalculation of the base year emissions or a change to the end date of the target. Note that the target status should be reported as "revised" only for the reporting year the update was conducted. • Replaced – Select this option for previously reported targets that have been replaced with another target in the reporting year, for example where a facility target has been incorporated into a organization-wide target. • Retired – Select this option for targets with an end date in the future, that have not been achieved, but will no longer be pursued. Provide more information as to why this target was retired in column 82 "Explain target coverage and identify any exclusions". Explain the reasons for the revision, replacement, or retirement of the target (column 81) • This column is only presented if you select "Revised", "Replaced", or "Retired" in response to column 80 "Target status in reporting year". • Provide details of the revisions, replacement, or retirement of the target in the reporting year and the reasons for making these changes. • For SBTi-approved targets, this may include:

	• Revisions to target data (e.g. recalculation of base year emissions due to divestment, acquisition, mergers, change in boundary, including changes in consolidation approach).
	• Significant changes to the target data (that could compromise relevance and consistency), triggering a mandatory target recalculation (SBTi criteria 26 and 27).
	• Updates to the target due to 1) Triggered recalculation of the target; 2) revalidation process when submitting new targets when a company has other targets in place (e.g. due to increasing ambition, achievement of target ahead of time).
	
	Explain target coverage and identify any exclusions (column 82)
	• If the target is not organization-wide (i.e. it does not apply to the whole company in line with your definition of the reporting boundary), provide further details of your target coverage in this column. E.g. if you have selected "Country/area/region" in column 6 "Target coverage", please specify which countries/areas/regions your target covers.
	• If there is a difference between your inventory base year emissions and this target's base year emissions, explain why.
	• If you have excluded any relevant Scopes or Scope 3 categories from your target, state the reason for omitting these Scopes or Scope 3 categories and outline any steps you are taking to enable target-setting for relevant Scopes or Scope 3 categories.
	• If you selected any "Yes…" option in column 78 "Land-related emissions covered by target", specify the types of land-related emissions that are covered by the target from those listed below. Refer to the additional information and the SBTi FLAG Guidance for more information.
	  ○ Direct land use change emissions – All direct emissions from land use change, including those associated with livestock feed and conversion of natural forests to plantation. Includes CO2 emissions from land use change associated with deforestation and forest degradation, including conversion of natural forest to plantation following GHG Protocol definitions, and CO2 emissions from land use change associated with conversion of coastal wetlands (mangroves, seagrass and marshes); conversion, draining and/or burning of peatlands; and conversion of savannas and natural grasslands.
	  ○ Indirect land use change emissions – Carbon stock loss due to land conversion on lands not owned or controlled by the company or in its value chain, induced by change in demand for products produced or sourced by the company.
	  ○ Land management emissions – All emissions from land management; CO2 emissions related to on-farm vehicles and fertilizer production are also included, as they are commonly embedded in accounting tools and emission factors associated with land management. Includes methane emissions from manure management, enteric fermentation, and flooded soil (for lowland rice); direct and indirect N2O emissions from manure management, crop residue, fertilizer application and fertilizer leaching, runoff and volatilization; methane and N2O emissions from agricultural waste burning; CO2 emissions from machinery used on farm and transport of biomass; and CO2 and N2O emissions from fertilizer production.
	  ○ Biological carbon removals and storage not associated with bioenergy feedstocks – Carbon sequestration from improved forest management, agroforestry, forest restoration, silvopasture, soil organic carbon and biochar, excluding removals from the production and end use of bioenergy.
	  ○ Biogenic emissions and associated removals from bioenergy feedstocks – CO2, CH4 and N2O emissions from the combustion, processing and distribution phase of bioenergy and the land use emissions and removals associated with bioenergy feedstocks.

	• You can use this column to identify where you have a financial year or average year-based target. If your target was originally in a different format, you may wish to give the original target before it was converted into the format required for the purposes of this table.
	• If your target is part of a wider carbon neutrality goal, a regulatory requirement, or a longer-term target, you can also explain this here.
	
	Target objective (column 83)
	• Describe the strategic objective for the target and how it links to your strategy. E.g. the objective of the target may be to meet a regulatory target or reduce the costs of compliance with an emissions trading scheme.
	
	Plan for achieving target, and progress made to the end of the reporting year (column 84)
	• This column only appears if you select "Underway", "Revised", or "New" in column 80 "Target status in reporting year"
	• Describe:
	  o How you plan to achieve the target, including any current and anticipated direct or indirect mitigation and adaptation efforts, such as emissions reduction initiatives, your organization plans to implement;
	  o Any planned milestones you have to monitor progress towards achieving your target;
	  o How the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target; and
	  o The processes you use for reviewing the target.
	• List the emissions reduction initiatives which have contributed most to any progress towards the target to the end of the reporting year.
	• Specify any other metrics you use, aside from percentage of target achievement, to monitor target progress and performance.
	• If possible, specify your anticipated and/or observed progress curve in this column, i.e.:
	  o Linear – the rate of progress towards the target is anticipated and/or observed to be steady over time
	  o Logarithmic – the rate of progress towards the target is anticipated and/or observed to be faster at the start
	  o Exponential – the rate of progress towards the target is anticipated and/or observed to be faster at the end
	  o Variable – the rate of progress towards the target is anticipated and/or observed to change from year to year
	• If you are not on track to achieve the target, explain how you plan to get back on track.
	
	List the emissions reduction initiatives which contributed most to achieving this target (column 86)
	• This column only appears if you select "Achieved" or "Achieved and maintained" in column 80 "Target status in reporting year".
	• List the initiatives which contributed most to emissions reductions achieved over the lifetime of the target.

Explanation of terms	• Sectoral decarbonization approach: a sectoral decarbonization approach is a methodology for companies to establish greenhouse gas (GHG) reduction targets by allocating a sector-specific carbon budget based on subsector-level considerations. The best practice example is the

	Sectoral Decarbonization Approach (SDA) developed by the SBTi. For further information on the SDA, consult the Science Based Targets SDA Methodology. • Maintenance target: a target to maintain a certain level of performance, such as the level of emissions reductions achieved after meeting a near-term target (e.g., a target to maintain a 90% reduction in scope 1+2 emissions compared to the base year). • Year-on-year rolling target: a target to achieve a certain level of performance every year (e.g., a target to reduce scope 1 emissions by 5% compared to the previous year).
Additional information	Science-based targets • Nearly 200 nations at COP21 wrote into the Paris Agreement that globally we will aim to limit warming to below 2°C and pursue efforts to limit warming to under 1.5°C. However, there is a large gap between the level of ambition of the country/area commitments and targeted temperatures. Companies, which are responsible for a vast majority of the world's emissions, must play a critical role in filling the gap left by country/area commitments by raising the level of ambition in their target setting and reducing their emissions in line with climate science. • Science-based target setting methods enable companies to set emissions targets that are consistent with conserving the remaining global emissions budget. A number of factors are taken into consideration in order to determine what is most appropriate for a given company. Please see the CDP Science Based Targets webpage and the 2024 climate change scoring methodology for information on best practices in target setting and what CDP considers a science-based target. • Organizations are very strongly encouraged to have their targets officially evaluated by the Science Based Targets initiative (SBTi). CDP considers targets approved by the initiative to reflect best practices in science-based target setting. Due to the waiting list for target validation, companies are encouraged to book a validation slot and submit their targets to the SBTi as early as possible in order for these targets to be used for scoring in CDP's 2024 questionnaire. • Regardless of submission to SBTi, companies are expected to report emissions reductions targets in their CDP response. Targets that did not pass the SBTi's review process or that have not been submitted for review prior to the deadline will still be evaluated using the information disclosed by each company in their CDP response. See the CDP Science Based Targets webpage for more details. Science-based targets — land-based emissions and removals accounting • As per the GHG Protocol Corporate Standard, GHG Protocol Corporate Value Chain (Scope 3) Standard and GHG Protocol Scope 2 Guidance, biogenic CO2 emissions and removals shall be reported alongside a company's GHG inventory, separately from the Scopes. However, SBTi criterion 10 requires CO2 emissions from the combustion, processing and distribution of bioenergy and the land use emissions and removals associated with bioenergy feedstocks to be included in the target boundary when setting a science-based target (in Scopes 1, 2 and/or 3, as relevant) and when reporting progress against that target, even though such CO2 emissions and/or removals are reported separately in a company's GHG inventory. Additionally, companies are expected to account for land-based emissions and removals and set FLAG targets to address these emissions. Land-based emissions and removals should be included within the boundary of an SBTi-approved FLAG target when reporting progress against that target. Progress against FLAG targets should be reported in line with the SBTi FLAG Guidance and the SBTi FLAG Annex submission form. Companies should select whether their targets cover land-based emissions and removals in column 78 "Land-related emissions covered by target". Companies are expected to adhere to any additional GHG Protocol Guidance on

	accounting for land-based emissions when released in order to maintain compliance with the SBTi criteria.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.53.2) Provide details of your emissions intensity targets and progress made against those targets.

Question details	
Question dependencies	• This question only appears if you select "Intensity target" in response to 7.53.
Change from last year	• Minor change
Rationale	• Target setting plays a vital role in environmental action through its role the successful execution of corporate strategies, as well as in the effective management of dependencies, impacts, risks, and opportunities. The question encourages organizations to set and make progress towards timebound, tracked, quantitative targets informed by the guidance of leading initiatives and frameworks, such as the Science Based Targets initiative where available.
Ambition	Organizations make progress against emissions targets that reflect their full emissions inventory and are in line with the Science Based Targets initiative (SBTi) criteria.
Response options	• Please complete the following table. The table is displayed over several rows for readability. You are able to add rows by using the "Add Row" function at the bottom of the table.

1	2	3	4	5	6	7
Target reference number	Is this a science-based target?	Science Based Targets initiative official validation letter	Target ambition	Date target was set	Target coverage	Greenhouse gases covered by target
Int1-Int100	Select from drop-down options below	[Attachment(s)]	Select from: • 1.5°C aligned • Well-below 2°C aligned • 2°C aligned • Other, please specify	Date field [enter a date between 01/01/1900 – 19/11/2025]	Select from: • Organization-wide • Business division • Business activity • Site/facility • Country/area/region • Product level • Other, please specify	Select all that apply: • Carbon dioxide (CO_2) • Methane (CH_4) • Nitrous oxide (N_2O) • Hydrofluorocarbons (HFCs) • Perfluorocarbons (PFCs) • Sulphur hexafluoride (SF_6) • Nitrogen trifluoride (NF_3)

8	9	10	11	12	13
Scopes	Scope 2 accounting method	Scope 3 categories	Intensity metric	End date of base year	Intensity figure in base year for Scope 1
Select all that apply: • Scope 1 • Scope 2 • Scope 3	Select from: • Location-based • Market-based	Select all that apply: • Category 1: Purchased goods and services • Category 2: Capital goods • Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) • Category 4: Upstream transportation and distribution • Category 5: Waste generated in operations • Category 6: Business travel	Select from drop-down options below	Date field [enter a date between 01/01/1900 – 19/11/2025]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places and no commas]

		• Category 7: Employee commuting • Category 8: Upstream leased assets • Category 9: Downstream transportation and distribution • Category 10: Processing of sold products • Category 11: Use of sold products • Category 12: End-of-life treatment of sold products • Category 13: Downstream leased assets • Category 14: Franchises • Category 15: Investments [does not appear to FS] • Other (upstream) • Other (downstream)			

14	15-31	32	33	34	35
Intensity figure in base year for Scope 2	Intensity figure in base year for Scope 3, Category […] [One column for each Scope 3 category]	Intensity figure in base year for total Scope 3 [auto-calculated]	Intensity figure in base year for all selected Scopes [auto-calculated]	% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure	% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
Numerical field [enter a number from 0- 999,999,999,999 using a maximum of 10 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places and no commas]	Numerical field [enter a number from 0- 999,999,999,999 using a maximum of 10 decimal places and no commas]	Numerical field [enter a number from 0- 999,999,999,999 using a maximum of 10 decimal places and no commas]	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]

36-52	53	54	55	56	57
% of total base year emissions in Scope 3, Category […] covered by this Scope 3, Category […] intensity figure [One column for each Scope 3 category]	% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure	% of total base year emissions in all selected Scopes covered by this intensity figure	End date of target	Targeted reduction from base year (%)	Intensity figure at end date of target for all selected Scopes [auto-calculated]

Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	[DD/MM/YYYY] between 19/11/2020and 31/12/2100	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Numerical field [0-999,999,999,999]

58	59	60	61	62-78	79
% change anticipated in absolute Scope 1+2 emissions	% change anticipated in absolute Scope 3 emissions	Intensity figure in reporting year for Scope 1	Intensity figure in reporting year for Scope 2	Intensity figure in reporting year for Scope 3, Category […] [One column for each Scope 3 category]	Intensity figure in reporting year for total Scope 3 [auto-calculated]
Percentage field [enter a percentage from -999-999 using a maximum of 2 decimal places]	Percentage field [enter a percentage from -999-999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places and no commas]

80	81	82	83	84	85
Intensity figure in reporting year for all selected Scopes [auto-calculated]	Land-related emissions covered by target	% of target achieved relative to base year [auto-calculated]	Target status in reporting year	Explain the reasons for the revision, replacement, or retirement of the target	Explain target coverage and identify any exclusions

Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places and no commas]	Select from: • Yes, it covers land-related emissions only (e.g. FLAG SBT) • Yes, it covers land-related and non-land related emissions (e.g. SBT approved before the release of FLAG target-setting guidance) • Yes, it covers land-related emissions/removals associated with bioenergy and non-land related emissions (e.g. non-FLAG SBT with bioenergy) • No, it does not cover any land-related emissions (e.g. non-FLAG SBT)	Percentage field	Select from: • New • Underway • Achieved • Achieved and maintained • Expired • Revised • Replaced • Retired	Text field [maximum 2,500 characters]	Text field [maximum 5,000 characters]

86	87	88	89
Target objective	Plan for achieving target, and progress made to the end of the reporting year	Target derived using a sectoral decarbonization approach	List the emissions reduction initiatives which contributed most to achieving this target
Text field [maximum 1,500 characters]	Text field [maximum 2,400 characters]	Select from: • Yes • No	Text field [maximum 2,400 characters]

[Add Row]

Is this a science-based target? (column 2)
• Yes, and this target has been approved by the Science Based Targets initiative • Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative • Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years • Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years • No, but we are reporting another target that is science-based • No, but we anticipate setting one in the next two years • No, and we do not anticipate setting one in the next two years

Intensity metric (column 11)
• Grams CO2e per revenue passenger kilometer • Metric tons CO2e per USD($) value-added • Metric tons CO2e per square meter • Metric tons CO2e per metric ton of aluminum • Metric tons CO2e per metric ton of steel • Metric tons CO2e per metric ton of cement • Metric tons CO2e per metric ton of cardboard • Grams CO2e per kilometer • Metric tons CO2e per unit revenue • Metric tons CO2e per unit FTE employee • Metric tons CO2e per unit hour worked • Metric tons CO2e per metric ton of product • Metric tons of CO2e per liter of product • Metric tons CO2e per unit of production • Metric tons CO2e per unit of service provided • Metric tons CO2e per square foot • Metric tons CO2e per kilometer • Metric tons CO2e per passenger kilometer • Metric tons CO2e per megawatt hour (MWh) • Metric tons CO2e per barrel of oil equivalent (BOE) • Metric tons CO2e per vehicle produced • Metric tons CO2e per metric ton of ore processed • Metric tons CO2e per ounce of gold • Metric tons CO2e per ounce of platinum • Metric tons of CO2e per metric ton of aggregate • Metric tons of CO2e per billion (currency) funds under management • Other, please specify

Requested content	General • Note that CDP is requesting data on gross emissions targets. Gross means total emissions before any deductions or other adjustments are made to take account of offset credits, avoided emissions, and/or reductions attributable to the sequestration or transfer of GHGs (except in a specific case of bioenergy use for science-based targets – see "Additional information" for more details). • If you have a target that will be met in part by offsetting (including carbon neutrality targets), or CO2 removals except for the bioenergy case specified in "Additional information", only the proportion of the target that relates to emissions reductions (and not offset purchases or CO2 removals) should be reported here. If you are uncertain of the proportion that will be achieved

through emissions reductions, make an estimation based on the initiatives that you have in place or planned.

- Targets to reduce emissions in the product use phase or to reduce emissions from the value chain should be captured as Scope 3 targets.
- If the details of your target differ between the Scopes (e.g. if the temperature alignment of your Scope 1+2 target is consistent with a 1.5°C-aligned pathway and the temperature alignment of your Scope 3 target is consistent with a well-below 2°C-aligned pathway), it is recommended to report separate rows for the Scope(s) for which the target differs.
- You may also use this question to report targets to maintain your emissions intensity at a stable level. To correctly report the progress against a maintenance target, i.e. a target to maintain the level of performance achieved by a previous target (e.g. "an organization-wide target to maintain a 90% reduction in emissions intensity"), you should treat it as a target to be met every year. In this case, "base year" corresponds to the base year of the emissions intensity reduction target that is being maintained, and "target year" corresponds to the reporting year.
- If you have interim targets, use the "Add Row" function to provide details about them separately.
- If you intend to report a net-zero target in 7.54.3, you should report both the near-term and long-term emissions reduction targets associated with your net-zero target either in this question or in 7.53.1, and link them to your net zero target in column 3 of 7.54.3. Please refer to the Science Based Targets SBTi Net-Zero Standard for information on science-based net-zero targets.
- If disclosing as a financial services company, financial institutions should report their portfolio targets, i.e. targets on scope 3 category 15, in 7.53.4. Emissions intensity targets related to portfolio activities are therefore reported in 7.53.4. Any other emissions intensity targets set by financial institutions should be reported in this question.

Target Reference Number (column 1)

- Select a unique target reference from the drop-down menu provided to identify the target in subsequent questions and to track progress against the target in subsequent reporting years.
- If you reported a target to CDP last year and will be reporting progress against the same target this year, ensure you use the same target reference number as last year. For any new targets you are adding, always use a new reference number that you have not used previously.

Is this a science-based target? (column 2)

- A brief description of science-based targets and why CDP is asking companies to set them is provided as additional information to this question.
- In addition, refer to the CDP Technical Note on Science-Based Targets for what qualifies as a science-based target and how to assess your target against the Science Based Targets initiative's criteria.
- Companies with activities in the oil and gas sector for which there is no available sector methodology to determine whether a target is science-based should select the most appropriate "No…" option in this column. For more information on sector-specific requirements, see pages 14-22 of the SBTi Criteria.
- Yes, and this target has been approved by the Science Based Targets initiative – Companies are very strongly encouraged to have their targets officially evaluated by the Science Based Targets initiative (SBTi). CDP considers targets approved by the initiative to reflect best practice in science-based target setting. Select this option only if the target has been approved by the SBTi.
- Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative – If your company has set a target and has self-assessed it to be science-based, and it has been submitted to the SBTi for validation and is currently being reviewed by the SBTi, you should select this option. You should use column 85 "Explain target coverage and identify any exclusions" to explain why you consider your target to be science-based.

	• Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years – Not all companies have had their target assessed by the SBTi. If your company has set a target and has self-assessed it to be science-based but has not yet submitted it to the SBTi for validation, you should select this option. You should use column 85 "Explain target coverage and identify any exclusions" to explain why you consider your target to be science-based. If you are currently in the process of revising your target to meet SBTi criteria, indicate this by selecting "No, but we anticipate setting one in the next two years". • Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years – Not all companies intend to have their target assessed by the SBTi. If your company has set a target and has self-assessed it to be science-based but has not committed to submit it to the SBTi for validation, you should select this option. You should use column 85 "Explain target coverage and identify any exclusions" to explain why you consider your target to be science-based. If you are a supplier to a company with a supplier engagement target, as part of which you have set a target in line with SBTi resources but are not planning to seek SBTi approval, select this option. • No, but we are reporting another target that is science-based – Another target (absolute or intensity) disclosed is science-based, either in another row in this table, or in 7.53.1. • No, but we anticipate setting one in the next two years – While not necessary, it is recommended that the company publicly state this by submitting a Science Based Target initiative commitment letter. • No, and we do not anticipate setting one in the next two years – No science-based targets have been set and there are no plans in place to set one in the next two years. Science Based Targets initiative official validation letter (column 3) • This column only appears if you select "Yes, and this target has been approved by the Science Based Targets initiative" in column 2 "Is this a science-based target?". • Attach your Science Based Targets initiative (SBTi) validation letter. Target ambition (column 4) • This column only appears if you select any "Yes" option in column 2 "Is this a science-based target?". • Select the level of ambition of your science-based target. Note that as of July 2022, the SBTi requires Scope 1 and 2 targets to be consistent with the level of decarbonization required to keep global temperature increase to 1.5°C compared to pre-industrial temperatures, and Scope 3 targets to be aligned with methods consistent with the level of decarbonization required to keep global temperature increase to well-below 2°C compared to pre-industrial temperatures. • If your target is aligned with below 1.5°C compared to pre-industrial temperature temperatures, select "1.5°C aligned". Date target was set (column 5) • Enter the date on which your company set the target. • This must be either before or during the reporting year but cannot be after the reporting year or after the end date of the target. • If the target is science-based and has been submitted to the SBTi for validation or revalidation (as indicated by your response to column 2), enter the date on which your organization submitted the target for validation or revalidation by the SBTi. • If you have a year-on-year rolling target, enter the date on which your company first set the target. This can be before the base year.

- If you set the target based on financial years, enter the date that applies to the end of your financial year and specify this in column 85 "Explain target coverage and identify any exclusions".
- If you do not know the exact date on which your company set the target, enter the end of the year that the target was set.

Target coverage (column 6)

- If the target applies to the whole organization, select "Organization-wide". Note that "organization" refers collectively to all the companies, businesses, organizations, other entities or groups that fall within your definition of the reporting boundary.
- It is considered best practice to report one overarching target covering total organization -wide Scope 1 and 2 emissions. Sub-targets may also be reported in additional rows.
- If the target does not apply to the whole organization, select the option that best describes the coverage of the target, and provide further details in column 85 "Explain target coverage and identify any exclusions" column. E.g. if your target applies only to your European operations, select "Country/area/region" in this column and specify the country/area/region in column 85 "Explain target coverage and identify any exclusions".

Greenhouse gases covered by target (column 7)

- Select all the greenhouse gases which are relevant to your organization and included in the target.
- This column includes the seven greenhouse gases covered by the Kyoto Protocol. For further information on the different greenhouse gases, see the GHG Protocol Corporate Standard Amendment.
- If the target has been approved by the SBTi, the gases reported should match those which were reported to the SBTi

Scopes (column 8)

- This refers to the scopes of emissions to which the target relates. Note that the target does not have to comprise all emissions within a particular Scope.
- If the target being reported has been validated by the SBTi, the scopes (scope 1, 2 and 3 emissions, and scope 3 categories) reported, and their coverage should match that which has been reported to the SBTi.

Scope 2 accounting method (column 9)

- This column only appears if you select "Scope 2" in column 8 "Scopes".
- Indicate whether the target relates to your location-based or market-based Scope 2 emissions.

Scope 3 categories (column 10)

- This column only appears if you "select "Scope 3" in column 6 8 "Scopes".
- Select the Scope 3 emissions category categories that relate to this target.
- For each Scope 3 category selected in this column, a corresponding column will appear for you to provide the category's Scope 3 intensity figures in the base year (columns 15-31), % of total base year emissions covered (columns 36-52) and intensity figure in the reporting year (columns 62-78).
- The categories of Scope 3 emissions have been taken from the Greenhouse Gas Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Refer to the Standard for additional information on the sources that each category comprises and how to calculate these emissions. If you are specifying a Scope 3 source under "Other, please specify" please make it clear whether it is an upstream or downstream source.

	Intensity metric (column 11) • If you select "Other, please specify", provide a label for the metric. • This should be in the format "mass CO_2 per activity", as in the drop-down options above. • The intensity metric selected should be applied consistently throughout the question, for example, if you select "Grams CO2e per revenue passenger kilometer" the subsequent columns requesting intensity figures e.g. column 13 "Intensity figure in base year for Scope 1" should be provided using this metric. End date of base year (column 12) • The base year is the year against which you are comparing your emissions intensity target. • The base year cannot be after the reporting year. • If you have a year-on-year rolling target, the end date of the base year will be within the previous reporting year. • As per the GHG Protocol (p. 79), it is recommended to use the same base year for your targets as the base year of your emissions inventory as reported in 7.5. See SBTi criteria for relevant considerations for selecting a science-based target base year. • If you have a maintenance target to maintain a certain level of performance (e.g. a 90% reduction in emissions intensity from the base year), the end date of the base year will be the same as the end date of the base year of the target that being maintained. If you did not have an intensity reduction target that is being maintained, your base year will be the current reporting year. • If you have a target based on financial years, enter the date that applies to the end of your financial year and specify this in column 84 "Explain target coverage and identify any exclusions". • If you have a target based on average emissions over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify this in column 84 "Explain target coverage and identify any exclusions". Intensity figure in the base year for Scope 1 (column 13) • This column only appears if you select "Scope 1" in column 8 "Scopes". • If the target encompasses multiple Scopes, this figure should be based upon the Scope 1 proportion only. • Note that the base year Scope 1 emissions intensity figure should be calculated by dividing the base year Scope 1 emissions covered by the target by the intensity metric denominator (e.g. unit revenue, metric ton of product etc). • E.g. if your target is to reduce your organization-wide Scope 1+2 emissions per full time equivalent (FTE) employee by 22%, using 2015 as the base year and 2025 as the target year, calculate what your organization-wide Scope 1 emissions were per FTE in 2015 and enter that figure in this column. Intensity figure in the base year for Scope 2 (column 14) • This column only appears if you select "Scope 2" in column 8 "Scopes". • If the target encompasses multiple Scopes, this figure should be based upon the Scope 2 proportion only. • Note that the base year Scope 2 emissions intensity figure should be calculated by dividing the base year Scope 2 emissions covered by the target by the intensity metric denominator (e.g. unit revenue, metric ton of product etc). • E.g. if your target is to reduce your organization-wide Scope 1+2 emissions per full time equivalent (FTE) employee by 22%, using 2015 as the base year and 2025 as the target year, calculate what

	your organization-wide Scope 2 emissions were per FTE in 2015 and enter that figure in this column. Intensity figure in base year for Scope 3, Category […] (columns 15 – 31) • A column will appear for each Scope 3 category selected in column 10 "Scope 3 categories". • If your target covers only certain activities within a Scope 3 category (as indicated in column 5 6 "Target coverage"), you should calculate the base year intensity figure using the base year emissions relating to those activities only, rather than the emissions for the Scope 3 category as a whole. Intensity figure in base year for total Scope 3) [auto-calculated] (column 32) • This column only appears if your select "Scope 3" in column 8 "Scopes". • This column will be auto-calculated as the sum of each "Intensity figure in base year for Scope 3, Category […] (metric tons CO2e per unit of activity" column which appears. Intensity figure in base year for all selected Scopes [auto-calculated] (column 33) • This column will be auto-calculated as the sum of columns 13 "Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)", 14 "Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)" and 32 "Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)" % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure (column 34) • This column only appears if you select "Scope 1" in column 8 "Scopes". • Enter the base year Scope 1 emissions covered by the target as a percentage of your total organization-wide base year emissions in Scope 1. • If the target encompasses multiple Scopes, the percentage should be based upon the Scope 1 proportion only. • Note that for this calculation you should use the absolute base year Scope 1 emissions covered by the target (i.e. metric tons CO2e), not the Scope 1 intensity figure you reported in column 13 "Intensity figure in base year for Scope 1" (i.e. metric tons CO2e per unit activity). • E.g. if your target is to reduce your Scope 1+2 emissions per FTE employee in your European operations only, and the Scope 1 emissions from your European operations accounted for 80% of your total Scope 1 emissions in the base year, then you should enter 80 into this column. • Entering a value of 100% indicates that the target covers your company's total, global gross emissions in the base year for Scope 1. % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure (column 35) • This column only appears if you select "Scope 2" in column 8 "Scopes". • Enter the base year Scope 2 emissions covered by the target as a percentage of your total organization-wide base year emissions in Scope 2. • If the target encompasses multiple Scopes, the percentage should be based upon the Scope 2 proportion only. • Note that for this calculation you should use the absolute base year Scope 2 emissions covered by the target (i.e. metric tons CO2e), not the Scope 2 intensity figure you reported in column 12 (i.e. metric tons CO2e per unit activity). • E.g. if your target is to reduce your Scope 1+2 emissions per FTE employee in your European operations only, and the Scope 2 emissions from your European operations accounted for 30% of your total Scope 2 emissions in the base year, then you should enter 30 into this column.

	• Entering a value of 100% indicates that the target covers your company's total, global gross emissions in the base year for Scope 2. % of total base year emissions in Scope 3, Category […] covered by this Scope 3, Category […] intensity figure (columns 36-52) • A column will appear for each category selected in column 10 "Scope 3 categories". • Enter the base year Scope 3 emissions covered by the intensity figure in the Scope 3 category as a percentage of your total organization-wide base year emissions in that Scope 3 category. • E.g., if your intensity figure covers only the Scope 3 Category 1 emissions of one region which accounts for 50% of your total base year Scope 3 emissions in Category 1, enter "50". % of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure (column 53) • This column only appears if you select "Scope 3" in column 8 "Scopes". • Enter the base year Scope 3 emissions covered by the target as a percentage of your total organization-wide base year emissions for all Scope 3 categories calculated in the base year. • E.g. if you have selected only one Scope 3 category (e.g. Business travel), you should enter the base year emissions in that category as a percentage of your total base year Scope 3 emissions in all categories. • If the target encompasses multiple Scopes, the percentage should be based upon the Scope 3 proportion only. • Note that for this calculation you should use the absolute base year Scope 3 emissions covered by the target (i.e. metric tons CO2e), not the total Scope 3 intensity figure you reported in column 30 (i.e. metric tons CO2e per unit activity). • E.g. if your target is to reduce your Scope 1+2+3 emissions per unit revenue for a particular business activity only (e.g. office-based operations, etc.), and the total Scope 3 emissions from that business activity accounted for 20% your total Scope 3 emissions in the base year, then you should enter 20 into this column. • Entering a value of 100% indicates that the target covers your company's total, global gross emissions in the base year for Scope 3. % of total base year emissions in all selected Scopes covered by this intensity figure (column 54) • Enter the total base year emissions covered by the target as a percentage of your total company-wide base year emissions in all Scopes selected in column 8 "Scopes". • Note that for this calculation you should use the absolute base year emissions covered by the target in all selected Scopes (i.e. metric tons CO2e), not the intensity figure you reported in column 33 "Intensity figure in base year for all selected Scopes" (i.e. metric tons CO2e per unit activity). • E.g. if your target is to reduce your Scope 1+2+3 emissions per FTE employee for your UK operations, and the Scope 1+2+3 emissions from your UK operations accounted for 10% your total, company-wide Scope 1+2+3 emissions, then you should enter 10 into this column. • Note that entering a value of 100% indicates that the target covers your company's total, global gross emissions in the base year for all Scopes selected in column 8. End date of target (column 55) • Enter the date that the target ends. For example, if the target is to reduce emissions intensity by 50% by the end of 2030, the end date of the target is 31st December 2030. • If you have a year-on-year rolling target or a maintenance target, the end date of the target will be within the reporting year.

	• If you have a long-term maintenance target that will begin once you have achieved your near-term emissions reduction target, the end date of the target will be the end date of the near-term target that you will be maintaining. • If you have a target based on financial years, enter the date that applies to the end of your financial year and specify in column 85 "Explain target coverage and identify any exclusions". • If you have a target based on average emissions over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify this in column 85 "Explain target coverage and identify any exclusions". • You should not report any target that was achieved before the start of the reporting year. Target reduction from base year (%) (column 56) • Enter your targeted emissions intensity reduction as a percentage reduction of the emissions intensity figure in all scopes relevant to the target to be achieved in the target year, when compared to the base year. • Note this column is to capture the percentage target reduction you have set to be achieved between the base year and the target year. • E.g. If your target is to reduce your Scope 1 + 2 emissions per FTE employee to 7 metric tons CO2e per FTE employee and your base year Scope 1 +2 intensity figure was 9 metric tons CO2e per FTE employee, you should enter 22 into this column (I.e., (9-7)/9) = 0.22 then multiply by 100 to give a percentage value). • If you are reporting a maintenance target, you should enter the same targeted reduction as the target that is being maintained. E.g., if your original target was to achieve a 90% reduction in emissions intensity from the base year, enter 90 here. If your target is to maintain emissions intensity at the base year level, you should enter 0 in this column. Intensity figure at end date of target for all selected Scopes [auto-calculated] (column 57) • This column will be auto-calculated • The intensity figure in your target year covered by the target will be calculated from column 33 "Intensity figure in base year for all selected Scopes" and 56 "Targeted reduction from base year". Ensure that you have entered data into these columns. • E.g. if your base year Scope 1+2 intensity figure was 9 metric tons CO2e per FTE employee, and your targeted reduction is 22%, this column will display 7. % change anticipated in absolute Scope 1 + 2 emissions (column 58) • This column only appears if you select "Scope 1" or "Scope 2" in column 8 "Scopes". • Enter the percentage change that is anticipated to occur in your total absolute gross global Scope 1 + 2 emissions, based on the information provided in the previous columns. • A positive figure indicates that you anticipate an increase in emissions. If you are anticipating a negative change in your Scope 1 and 2 emissions intensities overall, I.e., a reduction, report this figure by inserting a minus (-) symbol in front e.g., -20%. • Even if your target only relates to one Scope (I.e., Scope 1 or 2), enter the change anticipated in your combined Scope 1 and 2 emissions overall. • Note this is the actual change in absolute global scope 1 and 2 emissions that is expected, not the targeted. % change anticipated in absolute Scope 3 emissions (column 59) • This column only appears if you select "Scope 3" in column 8 "Scopes".

	• In this column enter the percentage change that is anticipated to occur in your total absolute global Scope 3 emissions (in all Scope 3 categories), based on the information provided in the previous columns. • A positive figure indicates that you anticipate an increase in emissions. If you are anticipating a negative change in your total absolute global scope 3 emissions overall I.e., a reduction, report the figure by inserting a minus (-) symbol in front e.g., -30%. • Note this is the actual change in absolute global scope 3 emissions expected, not the targeted. Intensity figure in reporting year for Scope 1 (column 60) • This column only appears if you select "Scope 1" in column 8 "Scopes". • If the target encompasses multiple Scopes, this figure should be based upon the Scope 1 proportion only. • Note that the Scope 1 emissions intensity figure in the reporting year should be calculated by dividing your reporting year Scope 1 emissions covered by the target by the intensity metric denominator (e.g. unit revenue, metric ton of product etc). • E.g. if your target is to reduce your Scope 1+2 emissions per full time equivalent (FTE) employee from 9 metric tons CO2e to 7 metric tons CO2e and in the reporting year your Scope 1 emissions per FTE employee were 5 metric tons CO2e, enter 5 in this column. Intensity figure in reporting year for Scope 2) (column 61) • This column only appears if you select "Scope 2" in column 8 "Scopes". • If the target encompasses multiple Scopes, the percentage should be based upon the Scope 2 proportion only. • Note that the Scope 2 emissions intensity figure in the reporting year should be calculated by dividing your reporting year Scope 2 emissions covered by the target by the intensity metric denominator (e.g. unit revenue, metric ton of product etc). • E.g. if your target is to reduce your Scope 1+2 emissions per full time equivalent (FTE) employee from 9 metric tons CO2e to 7 metric tons CO2e and in the reporting year your Scope 2 emissions per FTE employee were 3 metric tons CO2e, enter 3 in this column. Intensity figure in reporting year for Scope 3, Category […] (metric tons CO2e per unit of activity) (columns 62-78) • A column will appear for each Scope 3 category selected in column 10 "Scope 3 categories". • Note that an intensity figure for all Scope 3 categories covered by a target should be calculated every year. Intensity figure in reporting year for total Scope 3 [auto-calculated] (column 79) • This column only appears if you select "Scope 3" in column 8 "Scopes)". • This column will be auto-calculated as the sum of each "Intensity figure in reporting year for Scope 3, Category […] (metric tons CO2e per unit of activity)" column which appears. • If the target encompasses multiple Scopes, the percentage will be based upon the Scope 3 proportion only. • E.g. if your target is to reduce your organization-wide Scope 1+2+3 emissions per unit revenue from 16 metric tons CO2e to 5 metric tons CO2e and in the reporting year your Scope 3 emissions per unit revenue for the Scope 3 categories selected in column 10 were 2 metric tons CO2e, enter 2 in this column. Intensity figure in reporting year for all selected Scopes [auto-calculated] (column 80)

- This column will be auto-calculated as the sum of column 60 "Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)", 61 "Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)" and 79 "Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)"

Does this target cover any land-related emissions? Land-related emissions covered by target (column 81)

- A brief description of land-related emissions (i.e., GHG emissions from Agriculture, Forestry and Other Land Use (AFOLU)) is provided as additional information to this question.
- In addition, refer to the CDP Technical Note on Science-Based Targets for further detail and how to assess your target against the Science Based Targets initiative's criteria.
- Yes, it covers land-related emissions only (e.g. FLAG SBT) – Select this option if your target only covers GHG emissions related to land and agriculture and excludes emissions and removals associated with bioenergy, in line with SBTi guidance. Companies that have followed the SBTi Forests, Land and Agriculture (FLAG) guidance to set their target should select this option. This option will primarily be applicable to companies in the Agricultural Commodities, Food, Beverage & Tobacco, and Paper & Forestry CDP sectors.
- Yes, it covers land-related and non-land related emissions (e.g. SBT approved before the release of FLAG target-setting guidance) – Select this option if your target covers both GHG emissions related to land and agriculture and non-land related emissions from energy/industry. This option will be primarily applicable to companies in the Agricultural Commodities, Food, Beverage & Tobacco and Paper and Forestry CDP sectors whose target was approved by the SBTi before the release of the SBTi FLAG target-setting guidance.
- Yes, it covers land-related emissions/removals associated with bioenergy and non-land related emissions (e.g. non-FLAG SBT with bioenergy) – Select this option if your target covers GHG emissions from the combustion, processing and distribution phase of bioenergy and/or land use emissions and removals associated with bioenergy feedstocks, in addition to non-land related emissions from energy/industry. This option could apply to companies in any CDP sector with a target that includes emissions from bioenergy.
- No, it does not cover any land-related emissions (e.g. non-FLAG SBT) – Select this option if your target only covers non-land related emissions from energy/industry.
- If you select any "Yes…" option, specify the types of land-related emissions covered by the target in column 85 " Explain target coverage and identify any exclusions" .

% of target achieved relative to base year [auto-calculated] (column 82)

- This column will not appear if you set a target to maintain your emissions intensity at the base year level, i.e. if you have entered 0 (zero) in column 56 "Targeted reduction from base year (%)".
- This column will be auto-calculated according to the following formula. Ensure you have entered data into these columns.

$$\frac{\text{Intensity figure in base year for all selected Scopes (metric tons } CO^2\text{e per unit)} - \text{Intensity figure in reporting year for all selected scopes (metric tons } CO_2\text{e per unit)}}{\text{Intensity figure in base year for all selected Scopes (metric tons } CO_2\text{e per unit)} * \text{Targeted reduction from base year (\%)} / 100}$$

Target status in reporting year (column 83)

- New – Select this option for targets that have been set in the reporting year and are still in progress.
- Underway – Select this option for targets that were set before the reporting year, with an end date in the future, that have not been achieved and continue to be pursued.

	• Achieved – Select this option for targets that have been achieved or exceeded in the reporting year. • Achieved and maintained – Select this option for targets that are in place to maintain a certain level of performance (e.g., to maintain emissions intensity of reduction of 90% compared to 2017) and this has been achieved in the reporting year. • Expired – Select this option for targets with an end date within the reporting year, that have not been achieved or maintained and have therefore expired in the reporting year. • Revised – Select this option for targets that were set before the reporting year but a revision has been made to any of the elements in columns 2 to 79 in the reporting year, for example due to a recalculation of the base year emissions intensity or a change to the end date of the target. • Replaced – Select this option for previously reported targets that have been replaced with another target in the reporting year, for example where a facility target has been incorporated into a organization-wide target. • Retired – Select this option for targets with an end date in the future, that have not been achieved, but will no longer be pursued. Provide more information as to why this target was retired in column 85 "Explain target coverage and identify any exclusions". Explain the reasons for the revision, replacement, or retirement of the target (column 84) • This column only appears if you select 'Revised', "Replaced", or "Retired" in response to column 83 "Target status in reporting year". • Provide details of the revisions, replacement, or retirement of the target in the reporting year and the reasons for making these changes. • For SBTi-approved targets, this may include: • Revisions to target data (e.g. recalculation of base year emissions due to divestment, acquisition, mergers, change in boundary, including changes in consolidation approach). • Significant changes to the target data (that could compromise relevance and consistency), triggering a mandatory target recalculation (SBTi criteria 26 and 27). • Updates to the target due to 1) Triggered recalculation of the target; 2) revalidation process when submitting new targets when a company has other targets in place (e.g. due to increasing ambition, achievement of target ahead of time). Explain target coverage and identify any exclusions (column 85) • If the target is not organization-wide (i.e. it does not apply to the whole company in line with your definition of the reporting boundary) provide further details of your target coverage in this column. E.g. if you have selected "Country/area/region" in column 6 "Target coverage", specify which countries/areas/regions your target covers. • If there is a difference between your inventory base year emissions and this target's base year emissions, explain why. • If you have excluded any relevant Scopes or Scope 3 categories from your target, state the reason for omitting these Scopes or Scope 3 categories and outline any steps you are taking to enable target-setting for relevant Scopes or Scope 3 categories. • If you selected any "Yes…" option in column 81, specify the types of land-related emissions that are covered by the target from those listed below. Refer to the additional information and the SBTi FLAG Guidance for more information. ○ Direct land use change emissions – All direct emissions from land use change, including those associated with livestock feed and conversion of natural forests to plantation. Includes CO2 emissions from land use change associated with deforestation and forest degradation, including conversion of natural forest to plantation following GHG Protocol definitions, and CO2 emissions from land use change associated with conversion of

	coastal wetlands (mangroves, seagrass and marshes); conversion, draining and/or burning of peatlands; and conversion of savannas and natural grasslands. o Indirect land use change emissions – Carbon stock loss due to land conversion on lands not owned or controlled by the company or in its value chain, induced by change in demand for products produced or sourced by the company. o Land management emissions – All emissions from land management; CO2 emissions related to on-farm vehicles and fertilizer production are also included, as they are commonly embedded in accounting tools and emission factors associated with land management. Includes methane emissions from manure management, enteric fermentation, and flooded soil (for lowland rice); direct and indirect N2O emissions from manure management, crop residue, fertilizer application and fertilizer leaching, runoff and volatilization; methane and N2O emissions from agricultural waste burning; CO2 emissions from machinery used on farm and transport of biomass; and CO2 and N2O emissions from fertilizer production. o Biological carbon removals and storage not associated with bioenergy feedstocks – Carbon sequestration from improved forest management, agroforestry, forest restoration, silvopasture, soil organic carbon and biochar, excluding removals from the production and end use of bioenergy. o Biogenic emissions and associated removals from bioenergy feedstocks – CO2, CH4 and N2O emissions from the combustion, processing and distribution phase of bioenergy and the land use emissions and removals associated with bioenergy feedstocks. • You can use this column to identify where you have a financial year or average year-based target. • If your target was originally in a different format, you may wish to give the original target before it was converted into the format required for the purposes of this table. • If your target is part of a wider carbon neutrality goal, a regulatory requirement, or a longer-term target, you can also explain this here. Target objective (column 86) • Describe the strategic objective for the target and how it links to your strategy. E.g. the objective of the target may be to meet a regulatory target or reduce the costs of compliance with an emissions trading scheme. Plan for achieving target, and progress made to the end of the reporting year (column 87) • This column only appears if you select “Underway”, “Revised”, or “New” in column 83 “Target status in reporting year” • Describe: o How you plan to achieve the target, including any current and anticipated direct or indirect mitigation and adaptation efforts, such as emissions reduction initiatives, your organization plans to implement; o Any planned milestones you have to monitor progress towards achieving your target; o How the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target; and o The process(es) you use for reviewing the target. • List the emissions reduction initiatives which have contributed most to any progress towards the target to the end of the reporting year. • Specify any other metrics you use, aside from percentage of target achievement, to monitor target progress and performance. • If possible, specify your anticipated and/or observed progress curve in this column, i.e.:

	○ Linear – the rate of progress towards the target is anticipated and/or observed to be steady over time ○ Logarithmic – the rate of progress towards the target is anticipated and/or observed to be faster at the start ○ Exponential – the rate of progress towards the target is anticipated and/or observed to be faster at the end ○ Variable – the rate of progress towards the target is anticipated and/or observed to change from year to year • If you are not on track to achieve the target, explain how you plan to get back on track. List the emissions reduction initiatives which have contributed most to achieving this target since it was set (column 89) • This column only appears if you select "Achieved" or "Achieved and maintained" in column 83 "Target status in reporting year". • List the initiatives which contributed most to the emissions reductions achieved over the lifetime of the target.
Explanation of terms	• Sectoral decarbonization approach (SDA): A sectoral decarbonization approach is a methodology for companies to establish greenhouse gas (GHG) reduction targets by allocating a sector-specific carbon budget based on subsector-level considerations. The best practice example is the Sectoral Decarbonization Approach (SDA) developed by the SBTi. For further information on the SDA, consult the Science Based Targets SDA Methodology. • Maintenance target: a target to maintain a certain level of performance, such as the level of emissions reductions achieved after meeting a near-term target (e.g., a target to maintain a 90% reduction in scope 1+2 emissions compared to the base year). • Year-on-year rolling target: a target to achieve a certain level of performance every year (e.g., a target to reduce scope 1 emissions by 5% compared to the previous year).
Additional information	Science-based targets • Nearly 200 nations at COP21 wrote into the Paris Agreement that globally we will aim to limit warming to below 2°C and pursue efforts to limit warming to under 1.5°C. However, there is a large gap between the level of ambition of the country/area commitments and targeted temperatures. Companies, which are responsible for a vast majority of the world's emissions, must play a critical role in filling the gap left by country/area commitments by raising the level of ambition in their target setting and reducing their emissions in line with climate science. • Science-based target setting methods enable companies to set emissions targets that are consistent with conserving the remaining global emissions budget. A number of factors are taken into consideration in order to determine what is most appropriate for a given company. Please see the CDP Science Based Targets webpage and the 2024 climate change scoring methodology for information on best practices in target setting and what CDP considers a science-based target. • Companies are very strongly encouraged to have their targets officially evaluated by the Science Based Targets initiative (SBTi). CDP considers targets approved by the initiative to reflect best practices in science-based target setting. Due to the waiting list for target validation, companies are encouraged to book a validation slot and submit their targets to the SBTi as early as possible in order for these targets to be used for scoring in CDP's 2024 questionnaire. • Regardless of submission to SBTi, companies are expected to report emissions reductions targets in their CDP response. Targets that did not pass the SBTi's review process or that have not been submitted for review prior to the deadline will still be evaluated using the information

	disclosed by each company in their CDP response. See the CDP Science Based Targets webpage for more details. Science-based targets — land-based emissions and removals accounting As per the GHG Protocol Corporate Standard, GHG Protocol Corporate Value Chain (Scope 3) Standard and GHG Protocol Scope 2 Guidance, biogenic CO2 emissions and removals shall be reported alongside a company's GHG inventory, separately from the Scopes. However, SBTi criterion 10 requires CO2 emissions from the combustion, processing and distribution of bioenergy and the land use emissions and removals associated with bioenergy feedstocks to be included in the target boundary when setting a science-based target (in Scopes 1, 2 and/or 3, as relevant) and when reporting progress against that target, even though such CO 2 emissions and/or removals are reported separately in a company's GHG inventory. Additionally, companies are expected to account for land-based emissions and removals and set FLAG targets to address these emissions. Land-based emissions and removals should be included within the boundary of an SBTi-approved FLAG target when reporting progress against that target. Progress against FLAG targets should be reported in line with the SBTi FLAG Guidance and the SBTi FLAG Annex submission form. Companies should select whether their targets cover land-based emissions and removals in column 81. Companies are expected to adhere to any additional GHG Protocol Guidance on accounting for land-based emissions when released in order to maintain compliance with the SBTi criteria.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.53.3) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

Question details	
Question dependencies	This question only appears if you select "No target" in response to 7.53.
Change from last year	No change
Rationale	As setting a target is a pre-requisite for leadership in environmental practice, data users need to understand why companies do not have active targets guiding environmental strategy.
Response options	Please complete the following table:

1	2	3
Primary reason	Five-year forecast	Please explain
Select from:	Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]

• We are planning to introduce a target in the next two years • Important but not an immediate business priority • Judged to be unimportant, explanation provided • Lack of internal resources • Insufficient data on operations • No instruction from management • Other, please specify		

[Fixed row]

Requested content	General
	• If you select "Other, please specify," provide a label for the "Primary reason".
	Five-year forecast (column 2)
	• Provide a qualitative and quantitative description of how you forecast your emissions will change over the next five years.
	• It is acknowledged that this forecast will be an estimate, but it is expected that companies will:
	  ○ forecast the expected direction of change (e.g. whether their emissions will increase, decrease or experience no change overall over the next five years).
	  ○ provide a quantitative description of the forecasted change in emissions (e.g. Scope 1 emissions forecasted to decrease by 30 metric tons CO2e/ Scope 1 and Scope 2 emissions forecasted to increase by 10%/ Scope 3 emissions forecasted to decrease by 20%).
	  ○ provide a brief description of the reasons you forecast this change, or in the unlikely event, no change, in emissions over the next five years. For example, this could be due to forecasted changes in output or expected emissions reduction activities.
	Please explain (column 3)
	• Provide an explanation of why you do not have a target and the timeline to implement one, if applicable.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.53.4) Provide details of the climate-related targets for your portfolio.

Question details	
Question dependencies	• This question only appears if you select "Portfolio target" in response to 7.53
Change from last year	• Modified guidance

Rationale	• Achieving net zero by 2050 will require a major redirection of capital into sustainable solutions and low-carbon technologies, which only the financial services sector can provide. This profound influence on the wider economy means financial institutions' climate-related impact occurs mostly in their portfolios, rather than through their direct operations. Thus, setting targets and reporting on progress at a portfolio level is considered best practice for financial institutions and can help them align their financing, investment and insurance underwriting to a 1.5ºC world.
Ambition	Financial services companies set and progress climate-related targets for lending, investing and/or insuring that align with their commitment to achieve net zero by 2050.
Response options	• Please complete the following table. The table is displayed over several rows for readability. You are able to add rows by using the "Add Row" function at the bottom of the table.

1	2	3	4	5	6	7
Target reference number	Target type	Taxonomy or framework used to define "green finance"	Methodology used when setting the target	Date target was set	Target is set and progress against it is tracked at	Sector
Por1—- Por100	Select from: • Green finance • Sector Decarbonization Approach (SDA) • Portfolio coverage • Portfolio temperature rating target • Absolute portfolio emissions • Portfolio emissions intensity • Weighted average carbon intensity • Engagement target • Adaptation and resilience target • Other, please specify	Select from: • EU Taxonomy for Sustainable Activities • Other, please specify	Select from: • PAII's Net Zero Investment Framework • SBTi for Financial Institutions • NZAOA Target Setting Protocol • NZBA Target Setting Guidelines • NZIA Target Setting Protocol • A combination of the above • Own methodology • Other please specify	Date field [enter a date between 01/01/1900 – 19/11/2025]	Select from: • Sector level • Portfolio level • Asset class level	Select from: • Apparel • Biotech, health care & pharma • Food, beverage & agriculture • Fossil Fuels • Hospitality • Infrastructure • International bodies • Manufacturing • Materials • Power generation • Retail • Services • Transportation services

8	9	10	11	12	13	14
Portfolios covered by the target	Portfolio	Asset classes covered by the target	Sectors covered by the target	Target type: Absolute or intensity	Emissions scopes of portfolio companies covered by the target	% of portfolio emissions covered by the target
Select all that apply: • Banking (Bank) • Investing (Asset manager) • Investing (Asset owner)	Select from: • Banking (Bank) • Investing (Asset manager) • Investing (Asset owner)	Select all that apply: • Loans • Project finance • Bonds • Equity investments	Select all that apply: • Apparel • Biotech, health care & pharma • Food, beverage & agriculture	Select from: • Absolute • Intensity	Select from: • Scope 1 + 2 • Scope 1 + 2 + 3	Percentage field [enter a percentage from 0-100]

• Insurance underwriting (Insurance company)	• Insurance underwriting (Insurance company)	• Undrawn loan commitments • Fixed income • Cash equivalents/money market instruments • Real estate • Commodities • Other, please specify	• Fossil Fuels • Hospitality • Infrastructure • International bodies • Manufacturing • Materials • Power generation • Retail • Services • Transportation services			

15	16	17	18	19	20	21
% of asset class emissions covered by the target	Metric (or target numerator if intensity)	Target denominator	% of portfolio covered in relation to total portfolio value	Total value of assets covered by the target	% of asset class covered by the target, based on the total value of this asset class	Frequency of target reviews
Percentage field [enter a percentage from 0-100]	Select from: <u>DD options for: Green finance</u> • Total green finance raised and facilitated (unit currency as reported in 1.2) • Total green investments (unit currency as reported in 1.2) • Total green bonds outstanding (unit currency as reported in 1.2) • Total green debt instruments outstanding (unit currency as reported in 1.2)	Select from: <u>DD options for:</u> Green finance • Total finance raised and facilitated (unit currency as reported in 1.2) • Total investments (unit currency as reported in 1.2) • Total bonds outstanding (unit currency as reported in 1.2) • Total debt instruments outstanding (unit currency as reported in 1.2)	Percentage field [enter a percentage from 0-100]	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 2 decimal places and no commas]	Percentage field [enter a percentage from 0-100]	Select from: • Quarterly • Semi-annually • Annually • Every five years • Other, please specify

	• Green asset ratio based on turnover in the reporting year • Green asset ratio based on CAPEX in the reporting year • Other, green finance metric, please specify DD options for: Sector Decarbonization Approach (SDA) • Metric tons CO2e • Other, SDA metric please specify DD options for: Portfolio coverage • % of portfolio setting a Science-Based Target • % of taxonomy alignment • % of portfolio covered under transition finance framework • Other, portfolio coverage metric please specify DD options for: Portfolio temperature rating target • Degrees of warming DD options for: Absolute portfolio emissions • tCO2e	• Other, green finance denominator please specify DD options for: Sector Decarbonization Approach (SDA) • Meters squared • kWh • Ton cement • Ton pulp and paper • km • Passenger km • Ton km • Vehicle km • Ton iron and steel • Ton aluminum • Other, SDA denominator please specify DD options for: Portfolio emissions intensity • Million revenues (unit currency as reported in 1.2) • Million invested (unit currency as reported in 1.2) DD options for: Weighted average carbon intensity • Other, please specify				

	DD options for: Portfolio emissions intensity • tCO2e DD options for: Other, please specify • Other, please specify DD options for: Weighted average carbon intensity • Other, please specify DD options for: Engagement target • Other, please specify DD options for: Other, please specify • Other, please specify	DD options for: Engagement target • Other, please specify DD options for: Other, please specify • Other, please specify				

22	23	24	25	26	27	28
End date of base year	Figure in base year	We have an interim target	End of interim target year	Figure in interim target year	End date of target	Figure in target year
Date field [enter a date between 01/01/1900 – 19/11/2025]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Select from: • Yes • No	Date field [enter a date between 19/11/2020– 31/12/2100]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Date field [enter a date between 19/11/2020– 31/12/2100]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]

29	30	31	32	33	34	35
Figure in reporting year	% of target achieved relative to base year [auto-calculated]	Target status in reporting year	Aggregation weighting used	% of the temperature score calculated in the reporting year based on company targets	Is this a science-based target?	Target ambition
Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Auto-calculated Percentage achieved = (C23-C29)/(C23-C28)*100	Select from: • New • Underway • Achieved • Expired • Revised • Replaced • Retired	Select from: • Weighted average temperature score (WATS) • Total emissions weighted temperature score (TETS) • Market owned emissions weighted temperature score (MOTS) • Enterprise owned emissions weighted temperature score (EOTS) • Enterprise value (EV) + cash emissions weighted temperature score (ECOTS) • Total assets emissions weighted temperature score (AOTS) • Revenue owned emissions weighted temperature score (ROTS)	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Select from: • Yes, and this target has been approved by the Science Based Targets initiative • Yes, we consider this a science-based target, and we have committed to seek validation of this target by, the Science Based target initiative in the next two years • Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative • Yes, we consider this a science-based target, it has been set in line with the Glasgow Financial Alliance for Net Zero (GFANZ) commitments, and we have committed to seek validation by, or it is currently being reviewed by, the Science Based Targets initiative • Yes, we consider this a science-based target, and it has been set in line with the Glasgow Financial Alliance for Net Zero (GFANZ) commitments, but we have not committed to seek validation by the Science Based Targets initiative within the next two years • No, but we are reporting another target that is science-based • No, but we anticipate setting one in the next 2 years • No, and we do not anticipate setting one in the next 2 years	Select from: • 1.5°C aligned • Well-below 2°C aligned • 2°C aligned • Other, please specify

			• Other, please specify			

36	37	38
Provide details of your target and metrics	Please explain target coverage and identify any exclusions	Target objective
Text field [maximum 2,500 characters]	Text field [maximum 2,500 characters]	Text field [maximum 1,500 characters]

[Add row]

Requested content	Target reference number (column 1)
	• Select a unique target reference from the drop-down menu provided to identify the target in subsequent questions and to track progress against the target in subsequent reporting years.
	
	Target type (column 2)
	• Select which type of target you have implemented for your portfolio.
	  o Green finance: refers to the aim of providing loans, investments and/or other financial products and services to green projects.
	  o Sectoral Decarbonization Approach (SDA): a method for setting physical intensity targets that uses convergence of emissions intensity.
	  o Portfolio coverage: a method for setting target to drive the adoption of science-based emissions reduction targets by borrowers and/or investees.
	  o Portfolio temperature alignment: a method that enables financial institutions to set targets to align their base year portfolio temperature score to a long-term temperature goal.
	  o Portfolio emissions: setting targets to reduce absolute portfolio emissions or emissions intensity.
	  o Weighted average carbon intensity: a target on the weighted average carbon intensity (WACI), which is the weighted sum of carbon emissions per million of revenue.
	  o Engagement target: implies targeted engagement with the highest emitting assets in an investor's portfolio. The engagement threshold target should ensure that at least 70% of financed emissions in material sectors are either net zero, aligned with a net zero pathway, or are the subject of engagement and stewardship actions (either direct or collective). This target is supported by other tools IIGCC has released including the Net Zero Stewardship Toolkit
	  o Adaptation and resilience target: setting a target for aligning finance with adaptation and climate-resilient development.
	
	Taxonomy or framework used to define "green finance" (column 3)
	• This column is only presented if you have selected "Green finance" in column 2 "Target type".
	
	Date target was set (column 5)
	• Enter the date on which your company set the target.
	• This must be either before or during the reporting year but cannot be after the reporting year or after the end date of the target.
	• If you have a year-on-year rolling target, enter the date your company first set the target. This can be before the base year.
	• If you set the target based on financial years, enter the date that applies to the end of your company's financial year and specify this in the "Explain target coverage and identify any exclusions" column.
	• If you do not know the exact date on which your company set the target, enter the end of the year that the target was set.
	• If you are reporting a science-based target that has been revised, the date the target was set should refer to the date the target was revised rather than the date the original target was set.
	
	Target is set and progress against it is tracked at (column 6)
	• Indicate whether your target refers to a portfolio, a specific sector or specific asset class(es).
	• For example, if your portfolio target concerns companies in specific sectors (i.e. sector decarbonization approach), and select which sector it relates to in column 7 "Sector".
	• Your selection here will drive the options presented in subsequent columns.

	Sector (column 7) • This column is only presented if you selected “Sector level” in column 6 “Target is set and progress against it is tracked at”. • Select one sector per row and add rows if disclosing on multiple sectors. Portfolios covered by the target (column 8) • This column is only presented if your target is set on a sector level and refers to a specific sector, driven by selecting “Sector level” in column 6 “Target is set and progress against it is tracked at”. • See Explanation of Terms for definition of “Portfolio”. Portfolio (column 9) • The options in this column are driven by your selections in 1.10. • This column only appears if your target refers to a specific portfolio or asset classes. Asset classes covered by the target (column 10) • Select all of the asset classes covered by the target you are reporting. • If the target also covers asset classes not listed, use the “Other, please specify” option and provide the name of the asset class. Sectors covered by the target (column 11) • Select all of the sectors included within the target. • Select “All sectors” if your portfolio target concerns all your clients/investees. • This column is only presented when “Portfolio level” or “Asset class level” is selected in column 6 “Target is set and progress against it is tracked at”. • Select one or more sectors covered by the target. Target type: Absolute or intensity (column 12) • This column only appears if “Green finance”, “Sectoral Decarbonization Approach (SDA)”, "Absolute portfolio emissions ", “Portfolio emission intensity, “Weighted average carbon intensity”, “Engagement target” or “Other, please specify” is selected in column 2 “Target type”. • Select whether the target is an absolute target or an intensity target, e.g., targets related to tCO2e are absolute targets, whereas targets related to an intensity metric such as tCO2e/kWh are intensity targets. • If you select “absolute”, note that CDP is requesting data on gross emissions. Gross means total emissions before any deductions or other adjustments are made to take account of offset credits, avoided emissions from the use of goods and services and/or reductions attributable to the sequestration or transfer of GHGs. If you have a target that will be met in part by offsetting (including carbon neutrality targets), only the proportion of the target that relates to emissions reductions (and not offset purchases) should be considered here. Emissions scopes of portfolio companies covered by the target (column 13) • This column only appears if “Portfolio temperature rating target” is selected in column 2 “Target type”. % of portfolio emissions covered by the target (column 14) • Enter the percentage of total emissions in the portfolio selected in column 9 that is covered by the target. E.g., if a banking portfolio is selected in column 8 “Portfolios covered by the target”, the company should report the percentage of total banking portfolio emissions covered by the target. • If you are reporting a sector level target, and it covers multiple portfolios, enter the percentage of total emissions in the portfolios selected in column 8 “Portfolios covered by the target”.

	% of asset class emissions covered by the target (column 15) • If your target covers only one type of asset class, enter the percentage of total emissions in the asset class selected in column 10 “Asset classes covered by the target”. Target denominator (column 17) • This column only appears if “Intensity” is selected in column 12 “Target type: Absolute or intensity”. • The dropdowns which appear are based on the selection made in column 2 “Target type”. • If you select “Other, please specify,” provide a label for the metric. % of portfolio covered in relation to total portfolio value (column 18) • Enter the percentage of portfolio value covered by the target to the total portfolio value based on assets value as reported in 1.10. Frequency of target reviews (column 21) • Select the frequency for how often you review your target. End date of base year (column 22) • The base year is the year against which you are comparing your emissions reduction target. • The base year cannot be after the reporting year. • If you have a year-on-year rolling target, the end date of the base year will be within the previous reporting year. • If you have a target based on financial years, enter the date that applies to the end of your financial year and specify this in column 36 “Provide details of your target and metrics”. • If you have a target based on average emissions over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify this in the column 36 “Provide details of your target and metrics”. Figure in base year (column 23) • Enter the measured figure in the base year against which progress towards the target is measured. • The figure provided should be in the metric (or target numerator if intensity) provided in column 16 “Metric (or target numerator if intensity)”. • If your target is an intensity target, note that the intensity figure should be calculated by dividing the emissions covered by the target by the intensity metric denominator, as selected in columns 16 “Metric (or target numerator if intensity)” and 17 “Target denominator”. End of interim target year (column 25) • If you have an interim target, enter the target date of the interim target. • If you set the target based on financial years, enter the date that applies to the end of your company’s financial year and specify this in the “Explain target coverage and identify any exclusions” column. Figure in interim target year (column 26) • Enter the figure in the interim year covered by the target. • If the interim year is in the past, enter the measured figure. • If the interim year is in the future, enter the figure you expect to achieve in the interim year. • The figure provided should be in the metric (or target numerator if intensity) provided in column 16 “Metric (or target numerator if intensity)”. • If your target is an intensity target, note that the intensity figure should be calculated by dividing the emissions covered by the target by the intensity metric denominator, as selected in columns 16 “Metric (or target numerator if intensity)” and 17 “Target denominator”. End date of target (column 27)

	• Enter the date that the target ends. For example, if the target is to reduce emissions intensity by 50% by the end of 2030, the end date of the target is 31st December 2030. • If you have a year-on-year rolling target, the end date of the target will be within the reporting year. • If you have a target based on financial years, enter the date that applies to the end of your financial year and specify in the column 36 "Provide details of your target and metrics". • If you have a target based on average emissions over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify this in the column 36 "Provide details of your target and metrics". • You should not report any target that was achieved before the start of the reporting year. Figure in target year (column 28) • Enter the targeted figure you expect to achieve in target year. • The figure provided should be in the metric (or target numerator if intensity) provided in column 16 "Metric (or target numerator if intensity)". • If your target is an intensity target, note that the intensity figure should be calculated by dividing the emissions covered by the target by the intensity metric denominator, as selected in columns 16 "Metric (or target numerator if intensity)" and 17 "Target denominator". Figure in reporting year (column 29) • Enter the corresponding figure in the reporting year covered by the target. • The figure provided should be in the metric (or target numerator if intensity) provided in column 16 "Metric (or target numerator if intensity)". • If your target is an intensity target, note that the intensity figure should be calculated by dividing the emissions covered by the target by the intensity metric denominator, as selected in columns 16 "Metric (or target numerator if intensity)" and 17 "Target denominator". % of target achieved relative to base year (column 30) • This column is auto-calculated based on your responses in columns 23 "Figure in base year", 28 "Figure in target year" and 29 "Figure in reporting year". Target status in reporting year (column 31) • New - Select this option for targets that have been set in the reporting year and are still in progress. • Underway - Select this option for targets that were set before the reporting year, with a target year in the future, that have not been achieved and continue to be pursued. • Achieved - Select this option for targets that have been achieved or exceeded in the reporting year. • Expired - Select this option for targets with a target year of the reporting year, that have not been achieved and have therefore expired in the reporting year. • Revised - Select this option for targets that were set before the reporting year but a revision has been made to any of the elements in columns 2 "Target type" to 14 "% of portfolio emissions covered by the target" in the reporting year, for example due to a recalculation of the base year emissions intensity or a change to the end date of the target. Note that the target status should be reported as "revised" only for the reporting year when the update was conducted. • Replaced - Select this option for previously reported targets that have been replaced with another target in the reporting year, for example where a facility target has been incorporated into a organization -wide target. • Retired - Select this option for targets with a target year in the future, that have not been achieved, but will no longer be pursued. Provide more information as to why this target was retired in the "Please explain (including target coverage)" column. Aggregation weighting used (column 32)

	• This column only appears if "Portfolio coverage" or "Portfolio temperature rating target" is selected in column 2 "Target type".
	• If you disclose a Portfolio coverage or Portfolio temperature alignment target, select the aggregation weighting used.
	  o Weighted average temperature score (WATS): Temperature scores are allocated based on portfolio weights.
	  o Total emissions weighted temperature score (TETS): Temperature scores are allocated based on historical emission weights using total company emissions.
	  o Market owned emissions weighted temperature score (MOTS): Temperature scores are allocated based on an equity ownership approach.
	  o Enterprise owned emissions weighted temperature score (EOTS): Temperature scores are allocated based on an enterprise ownership approach.
	  o EV + cash emissions weighted temperature score (ECOTS): Temperature scores are allocated based on an enterprise value (EV) plus cash & equivalents ownership approach.
	  o Total assets emissions weighted temperature score (AOTS): Temperature scores are allocated based on a total assets ownership approach.
	  o Revenue owned emissions weighted temperature score (ROTS): Temperature scores are allocated based on the share of revenue.
	• If you select "Other, please specify", specify the aggregation weighting used.
	
	% of the temperature score calculated in the reporting year based on company targets (column 33)
	• This column only appears if you selected "Portfolio temperature rating target" as target type in column 2 "Target type".
	• Indicate the proportion of the temperature score calculated in the reporting year based on company targets (i.e. not based on a default score for the company).
	• This column is only relevant for portfolio temperature alignment targets. Further guidance on these and the process of setting a portfolio temperature alignment target can be found in the SBTi 'Financial-Sector-Science-Based-Targets-Guidance' (see page 85).
	
	Is this a science-based target? (column 34)
	• This column only appears if "Banking" or "Investing" is selected in either columns 8 "Portfolios covered by the target" or 9 "Portfolio".
	• Refer to the CDP Technical Note on Science-Based Targets for what qualifies as a science-based target and how to assess your target against the Science Based Targets initiative's criteria.
	• Yes, and this target has been approved by the Science Based Targets initiative – Companies are very strongly encouraged to have their targets officially evaluated by the Science Based Targets initiative (SBTi). CDP considers targets approved by the initiative to reflect best practice in science-based target setting. Select this option only if the target has been approved by the SBTi.
	• Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative – If your company has set a target and has self-assessed it to be science-based, and it has been submitted to the SBTi for validation and is currently being reviewed by the SBTi, you should select this option. You should use the "Please explain target coverage and identify any exclusions" column to explain why you believe your target to be science-based.
	• Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years – Not all companies have had their target assessed by the SBTi. If your company has set a target and has self-assessed it to be science-based but has not yet submitted it to the SBTi for validation, you should select this option. You should use the "Please explain target coverage and identify any exclusions" column to explain why you believe your target to be science-based. If you are currently in the

process of revising your target to meet SBTi criteria, indicate this by selecting "No, but we anticipate setting one in the next 2 years."

- Yes, we consider this a science-based target, it has been set in line with the Glasgow Financial Alliance for Net Zero (GFANZ) commitments, and we have committed to seek validation by, or it is currently being reviewed by, the Science Based Targets initiative – Many financial institutions committed to accelerating the decarbonization of the economy do so by joining the GFANZ coalition and by primarily setting targets based on the GFANZ commitments. If your company has set such a target and has self-assessed it to be science-based, and it has been submitted to the SBTi for validation, or you are in the process of doing so, you should select this option.
- Yes, we consider this a science-based target, and it has been set in line with the Glasgow Financial Alliance for Net Zero (GFANZ) commitments, but we have not committed to seek validation by the Science Based Targets initiative within the next two years – Many financial institutions committed to accelerating the decarbonization of the economy do so by joining the GFANZ coalition and by primarily setting targets based on the GFANZ commitments. If your company has set such a target and has self-assessed it to be science-based, but you have not committed to seek validation by SBTi, you should select this option.
- No, but we are reporting another target that is science-based – Another target (absolute or intensity) disclosed is science-based, either in another row in this table, or in 7.53.2.
- No, but we anticipate setting one in the next 2 years – While not necessary, it is recommended that the company publicly state this by submitting a Science Based Target initiative commitment letter.
- No, and we do not anticipate setting one in the next 2 years – No science-based targets have been set and there are no plans in place to set one in the next 2 years.

Target ambition (column 35)

- This column only appears if you select any "Yes" option in column 34 "Is this a science-based target?".
- Select the level of ambition of your science-based target. Note that as of July 2021 the SBTi currently requires Scope 1 and 2 targets to be consistent with the level of decarbonization required to keep global temperature increase to 1.5°C compared to pre-industrial temperatures, and Scope 3 targets to be consistent with the level of decarbonization required to keep global temperature increase to well-below 2°C compared to pre-industrial temperatures.

Provide details of your target and metrics (column 36)

- This column only appears if you select "Adaptation and resilience target" in column 2 "Target type".
- Provide the metric used for your target, as well as any other details.
- Provide how you measure progress against your target, what is the base year figure against which you compare.
- Figure in interim year, if applicable.
- Any other details you wish to provide.

Please explain target coverage and identify any exclusions (column 37)

- Provide further details of your target coverage in this column and any exclusions.
- You can use this column to identify where you have a financial year or average year based target.
- If your target was originally in a different format, you may wish to give the original target before it was converted into the format required for the purposes of this table.
- If your target is part of a wider carbon neutrality goal, a regulatory requirement, or a longer-term target, you can also explain this here.

Target objective (column 38)

	• Describe the strategic objective for the target and how it links to your strategy. E.g. the objective of the target may be to meet a regulatory target or reduce the costs of compliance with an emissions trading scheme.
Explanation of terms	• Year-on-year rolling target: a target to achieve a certain level of performance every year (e.g., a target to reduce scope 1 emissions by 5% compared to the previous year). • Portfolio: in the context of this questionnaire your portfolio is the entire collection of your core financing activities and insurance policies that you offer. For bank lending, this is the entire collection of products and loans held on your balance sheet for which you own the receivable stream. For asset managers, this is the entire collection of your products and investments that you hold and/or manage on behalf of your clients. For asset owners, this is the entire collection of products, funds and investments owned and controlled by your company. For investment portfolios, asset managers should consider discretionary investments, those where the company has discretion over investment decision. For insurance underwriting, this is the entire collection of products and insurance policies you provide to your clients.

Additional information	• Financial institutions can go further once they have calculated portfolio impact metrics by using the metrics to set targets for reducing their climate change impact and to inform actions they can take to reduce their impact. Reporting on progress through effective environmental disclosures is important at every stage of the journey.
	• There are a number of methodologies organizations in the financial sector can use to set and/or communicate portfolio targets. Some resources that may help you set and/or communicate a target include:
	  ○ SBTi – Financial Sector Science-Based Targets Guidance
	  ○ Net-Zero Asset Owner Alliance – Target Setting Protocol
	  ○ Net-Zero Banking Alliance – Guidelines for Climate Target Setting
	  ○ IIGCC – Paris Aligned Investment Initiative

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	FS

(7.54) Did you have any other climate-related targets that were active in the reporting year?

Question details	
Change from last year	No change
Rationale	Target setting plays a vital role in environmental action through its role in the successful execution of corporate strategies, as well as in the effective management of dependencies, impacts, risks, and opportunities. Emissions reduction targets are not the only type of relevant targets that organizations use to drive change, as other target types can be an important element of organizations' strategies to reduce their emissions. This question increases transparency of corporate environmental commitments relevant to different organizations.

Response options	Select all that apply: : • Targets to increase or maintain low-carbon energy consumption or production • Targets to reduce methane emissions • Net-zero targets • Other climate-related targets • No other climate-related targets

Requested content	Note for oil and gas and coal sectors: • If you have a methane-specific emissions reduction target that was not reported in 7.53.1/7.53.2, select "Targets to reduce methane emissions". You will then receive a follow up question 7.54.2 where you can provide details of your methane-specific emissions reduction target. • If you engage in oil and gas or coal mining activities and have not selected "Targets to reduce methane emissions" in this question, you will receive a follow up question 7.54.4/7.54.5 requesting information on why you do not have a methane-specific emissions reduction target and will be asked to forecast how your methane emissions will change. • If methane emissions are not applicable to your organization, you will be given the opportunity to explain this in 7.54.4/7.54.5.

Explanation of terms	• Target to reduce methane emissions, or "methane-specific target" is any target to reduce specifically methane (CH_4) emissions e.g. reduction of leakage, venting or flaring of methane.
	• Net-zero target: the SBTi Net-Zero Standard defines corporate net-zero as:
	  ○ Reducing Scope 1, 2 and 3 emissions to zero or to a residual level that is consistent with reaching net-zero emissions at the global or sector level in eligible 1.5°C scenarios or sector pathways and;
	  ○ Neutralizing any residual emissions at the net-zero target date and any GHG emissions released into the atmosphere thereafter.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionniare sector	Question level	All

(7.54.1) Provide details of your targets to increase or maintain low-carbon energy consumption or production.

Question details	
Question dependencies	• This question only appears if you select "Targets to increase or maintain low-carbon energy consumption or production" in response to 7.54.
Change from last year	• Additional guidance
Rationale	• Target setting plays a vital role in environmental action through its role in the successful execution of corporate strategies, as well as in the effective management of dependencies, impacts, risks, and opportunities. Targets related to increasing or maintaining low-carbon energy consumption or production can be an important element of organizations' strategies to reduce their emissions.

Response options	• Please complete the following table. The table is displayed over several rows for readability. You are able to add rows by using the “Add Row” button at the bottom of the table.

1	2	3	4	5	6	7
Target reference number	Date target was set	Target coverage	Target type: energy carrier	Target type: activity	Target type: energy source	End date of base year
Low1 – Low100 Response options	Date field [enter a date between 01/01/1900 – 19/11/2025]	Select from: • Organization-wide • Business division • Business activity • Site/facility • Country/area/region • Product level • Other, please specify	Select from: • Electricity • Heat • Steam • Cooling • All energy carriers • Other, please specify	Select from: • Consumption • Production	Select from: • Low-carbon energy source(s) • Renewable energy source(s) only	Date field [enter a date between 01/01/1900 – 19/11/2025]

8	9	10	11	12	13	14
Consumption or production of selected energy carrier in base year (MWh)	% share of low-carbon or renewable energy in base year	End date of target	% share of low-carbon or renewable energy at end date of target	% share of low-carbon or renewable energy in reporting year	% of target achieved relative to base year [auto-calculated]	Target status in reporting year
Numerical field [enter a number from 0-999,999,999,999 using a maximum of 10 decimal places and no commas]	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Date field [enter a date between 19/11/2020–31/12/2100]	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Percentage field	Select from: • New • Underway • Achieved • Achieved and maintained • Expired • Revised • Replaced • Retired

15	16	17	18	19	20	21	22
Explain the reasons for the revision, replacement, or retirement of the target	Is this target part of an emissions target?	Is this target part of an overarching initiative?	Science Based Targets initiative official validation letter	Explain target coverage and identify any exclusions	Target objective	Plan for achieving target, and progress made to the end of the reporting year	List the actions which contributed most to achieving this target

Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters] [Emissions reduction target ID]	Select all that apply: • RE100 • Science Based Targets initiative • No, it's not part of an overarching initiative • Other, please specify	[Attachment(s)]	Text field [maximum 2,400 characters]	Text field [maximum 1,500 characters]	Text field [maximum 2,500 characters]	Text field [maximum 2,500 characters]

[Add row]

Requested content	General • If you are a member of the RE100 initiative, you can use this question to self-report your progress towards achieving your RE100 target. Note that RE100 will use the data you report in other sections of this module (Energy-Related Activities, Electricity transmission and Distribution) to come to its own assessment of your progress towards your RE100 target. If you have interim targets, they can be reported in this question in additional rows. • If you have a renewable electricity procurement target approved by the SBTi, you can report progress towards achieving that target in this question. • To correctly report the progress against a maintenance target, i.e. a target to maintain a certain level of performance (e.g. "A organization-wide target to continue active annual sourcing of 100% of heat consumed from low-carbon sources"), you should treat it as a target to be met every year. In this case, "base year" corresponds to the base year of the low-carbon energy increase target that is being maintained, and "target year" corresponds to the reporting year. Target reference number (column 1) • Select a unique target reference from the drop-down menu provided to track progress against this target in subsequent reporting years. Date target was set (column 2) • Enter the date on which your company set the target. • This must be either before or during the reporting year but cannot be after the reporting year. It also cannot be after the end date of the target . • For year-on-year rolling targets, enter the date that you first set the target. This can be before the base year. • If the target was set based on financial years, enter the date that applies to the end of your financial year and specify this in column 19 "Explain target coverage and identify any exclusions". • If you do not know the exact date on which your company set the target, enter the end of the year that the target was set. Target coverage (column 3) • If the target applies to the whole company, select "Organization-wide". Members of the RE100 initiative should select this option to report their RE100 target. Note that "organization" refers collectively to all the companies, businesses, organizations, other entities or groups that fall within your definition of the reporting boundary. • If the target does not apply to the whole company, select the option that best describes the coverage of the target, and provide further details in column 19 " Explain target coverage and identify any exclusions" . E.g. if your target applies only to your European operations, select "Country/area/region" in this column and specify the country/area/region in the column "Explain target coverage and identify any exclusions". Target type: energy carrier (column 4) • Select the energy carrier to which your target relates. • If your target relates to electricity, heat, steam and cooling combined, select "All energy carriers". • If your target relates to multiple, but not all, energy carriers, select "Other, please specify" and indicate the energy carriers your target relates to. • Members of the RE100 initiative should select "Electricity" to report their RE100 target. Target type: activity (column 5)

- Members of the RE100 initiative should select “Consumption” in this column to report their RE100 target.

Target type: energy source (column 6)

- Select whether the target relates to increasing consumption or production of low-carbon energy, or of renewable energy specifically. Definitions are provided in the explanation of terms below.
- Members of the RE100 initiative should select “Renewable energy source(s) only” to report their RE100 target.

End date of base year (column 7)

- The base year is the year against which you are comparing your target.
- The base year cannot be after the reporting year.
- For RE100 targets, the base year is usually the year that your organization committed to the RE100 initiative.
- If you have a year-on-year rolling target, the end date of the base year will be within the previous reporting year.
- If you have a maintenance target, your base year will be the same as the base year of the target that is being maintained. If you did not have a target to increase low-carbon energy consumption or production before setting a maintenance target, your base year will be the current reporting year.
- If you have a target based on financial years, enter the date that applies to the end of your financial year and specify this in column 19 “ Explain target coverage and identify any exclusions” .
- If you have a target based on an average over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify this in column 19 “ Explain target coverage and identify any exclusions” .

Consumption or production of selected energy carrier in base year (MWh) (column 8)

- Enter the absolute base year value for the target in megawatt hours (MWh). Note that this figure should be consistent with your selections in columns 3-6.
- E.g. if your target is to achieve 100% renewable electricity consumption in your European operations by a target year of 2025 compared with a base year of 2015, enter in MWh the absolute renewable electricity consumed by your European operations in 2015 in this column.
- E.g. for RE100 members, if your organization-wide RE100 target is to achieve 100% renewable electricity consumption for your entire operations by a target year of 2025, enter in MWh the absolute renewable electricity consumed across all of your operations in the base year (i.e. the year that your organization committed to the RE100 initiative as specified in column 7).
- If your target relates to multiple energy carriers, enter the total MWh in the base year for all energy carriers.

% share of low-carbon or renewable energy in base year (column 9)

- Enter percentage share of low-carbon or renewable energy in the base year covered by the target.
- This is the low-carbon or renewable energy in the base year covered by the target (reported in column 8) as a percentage of the total energy in the base year covered by the target.
- E.g. if your target is to achieve 100% renewable electricity consumption in your European operations by a target year of 2025 compared with a base year of 2015, and in 2015 the renewable proportion of the total electricity consumed by your European operations was 40%, you should enter 40 in this column.
- E.g. for RE100 members, if your organization-wide RE100 target is to achieve 100% renewable electricity consumption for your entire operations by a target year of 2025, and the

renewable proportion of the total electricity consumed across all of your operations in the base year (i.e. the year that your organization committed to the RE100 initiative as specified in column 7) was 60%, you should enter 60 in this column.

End date of the target (column 10)

- Enter the date that the target ends. For example, if the target is to increase renewable energy production by 200% by the end of 2030, the end date of the target is 31st December 2030.
- If you have a year-on-year rolling target or maintenance target, the end date of your target will be within the reporting year.
- If you have a target based on financial years, enter the date that applies to the end of your financial year and specify in column 19 " Explain target coverage and identify any exclusions" .
- If you have a target based on an average over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify this in column 19 " Explain target coverage and identify any exclusions" .
- You should not report any target that was achieved before the start of the reporting year.

% share of low-carbon or renewable energy at end date of target (column 11)

- Enter the percentage share of low-carbon or renewable energy covered by the target to be achieved by the end date of the target . This indicates your target ambition.
- E.g. if your target is to achieve 100% renewable electricity consumption in your European operations by the end of 2025 compared with a base year of 2015, enter 100 in this column. If your target is to maintain 100% renewable electricity consumption, enter 100 in this column.
- Members of the RE100 initiative should enter "100" in this column to report their RE100 target.

% share of low-carbon or renewable energy in reporting year (column 12)

- Enter the percentage share of low-carbon or renewable energy covered by the target in the reporting year.
- E.g. if your target is to achieve 100% renewable electricity consumption in your European operations by the end of 2025 compared with a base year of 2015, and in the reporting year the renewable proportion of the total electricity consumed by your European operations was 80%, you should enter 80 in this column.
- If you are a member of the RE100 initiative, this column allows you to self-report progress against achieving your RE100 target. Note that RE100 will use the data you report in other sections of this module (Energy-Related Activities, Electricity transmission and Distribution) to come to its own assessment of your progress towards your RE100 target.
- E.g. for RE100 members, if your organization-wide RE100 target is to achieve 100% renewable electricity consumption for your entire operations by the end of 2025, and in the reporting year the renewable proportion of the total electricity consumed across all of your operations was 90%, you should enter 90 in this column.

% of target achieved relative to base year [auto-calculated] (column 13)

- This column will be auto-calculated
- The target's percentage completion compared with the base year will be calculated from the "% share of low-carbon or renewable energy in base year" (column 9), '% share of low-carbon or renewable energy at end date of target " (column 11), and "% share of low-carbon or renewable energy in reporting year" (column 12) columns. Ensure you have entered data into these columns.

$$\frac{(\%\ share\ of\ low-carbon\ or\ renewable\ energy\ in\ reporting\ year)-(\%\ share\ of\ low-carbon\ or\ renewable\ energy\ in\ base\ year)}{(\%\ share\ of\ low-carbon\ or\ renewable\ energy\ at\ end\ date\ of\ target)-(\%\ share\ of\ low-carbon\ or\ renewable\ energy\ in\ base\ year)}\times 100\%$$

- E.g. if your target is to achieve 100% renewable electricity consumption in your European operations by the end of 2025 compared with 40% renewable electricity consumption in a base year of 2015, and in the reporting year you achieved 80% renewable electricity consumption, this column will display 66 as you have achieved 66% of your targeted increase in renewable electricity compared with the base year.
- Negative values indicate a decrease in low carbon or renewable energy consumption or production compared to the base year.
- Values greater than 100 indicate that you have exceeded your target.
- If you are a member of the RE100 initiative, note that this column is not used to assess progress against your RE100 target. The RE100 target is considered to be achieved when the % share of renewable electricity in the reporting year is equal to 100%.

Target status in reporting year (column 14)

- New – Select this option for targets that have been set in the reporting year and are still in progress.
- Underway – Select this option for targets that were set before the reporting year, with an end date in the future, that have not been achieved and continue to be pursued.
- Achieved – Select this option for targets that have been achieved or exceeded in the reporting year.
- Achieved and maintained – Select this option for targets that are in place to maintain a certain level of performance (e.g., to maintain 100% renewable energy consumption) and this has been achieved in the reporting year.
- Expired – Select this option for targets with an end date within the reporting year, that have not been achieved or maintained and have therefore expired in the reporting year.
- Revised – Select this option for targets that were set before the reporting year but a revision has been made to any of the elements in columns 2 to 12 in the reporting year, for example due to a recalculation or a change to the end date of the . Note that the target status should be reported as "revised" only for the reporting year when the update was conducted.
- Replaced – Select this option for previously reported targets that have been replaced with another target in the reporting year, for example where a facility target has been incorporated into a organization -wide target.
- Retired – Select this option for targets with an end date in the future, that have not been achieved, but will no longer be pursued. Provide more information as to why this target was retired in column 19 " Explain target coverage and identify any exclusions" .

Explain the reasons for the revision, replacement, or retirement of the target (column 15)

- This column is only presented if you select "Revised", "Replaced", or "Retired" in response to "Target status in reporting year" (column 14)
- Provide details of the revisions to the target in the reporting year and the reasons for making these revisions.
- For SBTi-approved targets, this may include:
    - Revisions to target data (e.g. recalculation of base year emissions due to divestment, acquisition, mergers, change in boundary, including changes in consolidation approach).
    - Significant changes to the target data (that could compromise relevance and consistency), triggering a mandatory target recalculation (SBTi criteria 26 and 27).
    - Updates to the target due to 1) Triggered recalculation of the target; 2) revalidation process when submitting new targets when a company has other targets in place (e.g. due to increasing ambition, achievement of target ahead of time).

Is this target part of an emissions target? (column 16)

- If the target is part of an emissions reduction target reported in 7.53.1 or 7.53.2, enter the emissions reduction target reference number here.

Is this target part of an overarching initiative? (column 17)

- "No, it's not part of an overarching initiative" cannot be selected in conjunction with another option.
- If you are a member of the RE100 initiative, ensure to select "RE100" here.

Science Based Targets initiative official validation letter (column 18)

- This column only appears if you select "Science Based Targets initiative " in column 17 "Is this target part of an overarching initiative?".
- Attach your Science Based Targets initiative (SBTi) validation letter.

Explain target coverage and identify any exclusions (column 19)

- If the target does not apply to the whole organization (i.e. the target coverage is not "Organization-wide"), provide further details of your target coverage in this column. E.g. if you have selected "Country/area/region" in column 3, specify which countries/areas/regions your target covers.
- If the target relates to low-carbon or renewable energy consumption, indicate whether the target covers all low-carbon or renewable energy consumption (i.e., the consumption of both self-generated and purchased/acquired energy) or only the consumption of purchased/acquired low-carbon or renewable energy.
- If you reported a renewable energy consumption or production target in 7.54 last year and are reporting progress against the same target this year, indicate this in this column.
- You can use this column to identify where you have a financial year or average year-based target.
- If your target was originally in a different format, you may wish to give the original target before it was converted into the format required for the purposes of this table.
- If your target is part of a wider carbon neutrality goal, a regulatory requirement, or a longer-term target, you can also explain this here.

Target objective (column 20)

- Describe the strategic objective for the target and how it links to your strategy. E.g. the objective of the target may be to meet a regulatory target or reduce the costs of compliance with an emissions trading scheme.

Plan for achieving target, and progress made to the end of the reporting year (column 21)

- This column is only presented if "Underway", "Revised", or "New" is selected in column 14 "Target status in reporting year".
- Describe:
    - How you plan to achieve the target, including any current and anticipated direct or indirect mitigation and adaptation efforts, and list the actions which have contributed most to any progress towards the target;
    - Any planned milestones you have to monitor progress towards achieving your target;
    - How the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target; and
    - The process(es) you use for reviewing the target.
- Specify any other metrics you use, aside from percentage of target achievement, to monitor target progress and performance.
- If possible, specify your anticipated and/or observed progress curve in this column, i.e.:

	○ Linear – the rate of progress towards the target is anticipated and/or observed to be steady over time ○ Logarithmic – the rate of progress towards the target is anticipated and/or observed to be faster at the start ○ Exponential – the rate of progress towards the target is anticipated and/or observed to be faster at the end ○ Variable – the rate of progress towards the target is anticipated and/or observed to change from year to year • If you are not on track to achieve the target, explain how you plan to get back on track. List the actions which contributed most to achieving this target (column 22) • This column is only presented if "Achieved" or "Achieved and maintained" is selected in column 14 "Target status in reporting year".
Explanation of terms	• Low-carbon energy: in line with the IEA definition, low-carbon technologies are technologies that produce low – or zero – greenhouse-gas emissions while operating. In the power sector this includes fossil-fuel plants fitted with carbon capture and storage, nuclear plants and renewable-based generation technologies. Natural gas, combined cycle gas turbine and fossil fuel-based combined heat and power (cogeneration), despite being less carbon intensive than other means of electricity production like coal, are not considered low-carbon. • Maintenance target: a target to maintain a certain level of performance, such as the level of emissions reductions achieved after meeting a near-term target (e.g., a target to maintain a 90% reduction in scope 1+2 emissions compared to the base year). • Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004). • Year-on-year rolling target: a target to achieve a certain level of performance every year (e.g., a target to reduce scope 1 emissions by 5% compared to the previous year).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionniare sector	Question level	All

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

Question details	
Question dependencies	• This question only appears if you select "Other climate-related targets" or "Targets to reduce methane emissions" in response to 7.54.
Change from last year	• Modified question
Rationale	• Target setting plays a vital role in environmental action through its role in the successful execution of corporate strategies, as well as in the effective management of dependencies, impacts, risks, and opportunities. Emissions reduction targets are not the only type of relevant targets that organizations use to drive change.Other climate-related targets can be an important element of organizations' strategy to reduce their emissions. This question increases transparency of corporate environmental commitments.
Response options	• Please complete the following table. The table is displayed over several rows for readability. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3	4	5	6
Target reference number	Date target was set	Target coverage	Target type: absolute or intensity	Target type: category & metric (target numerator if reporting an intensity target)	Target denominator (intensity targets only)
Oth1 – Oth100	Date field [enter a date between 01/01/1900 – 19/11/2025]	Select from: • Organization-wide • Business division • Business activity • Site/facility • Country/areas/region • Product level • Other, please specify	Select from: • Absolute • Intensity	Grouped dropdowns (single-select group; single-select option) from dropdown list below	Select from drop-down options below

7	8	9	10	11	12	13
End date of base year	Figure or percentage in base year	End date of target	Figure or percentage at end of date of target	Figure or percentage in reporting year	% of target achieved relative to base year [auto-calculated]	Target status in reporting year
Date field [enter a date between 01/01/1900 – 19/11/2025]	Numerical field [enter a number from 0-999,999,999,999,999 using a maximum of 10 decimal places and no commas	Date field [enter a date between 19/11/2020– 31/12/2100]	Numerical field [enter a number from 0-999,999,999,999,999 using a maximum of 10 decimal places and no commas	Numerical field [enter a number from 0- 999,999,999,999,999 using a maximum of 10 decimal places and no commas	Percentage field	Select from: • New • Underway • Achieved • Achieved and maintained • Expired • Revised • Replaced • Retired

14	15	16	17	18	19
Explain the reasons for the revision, replacement, or retirement of the target	Is this target part of an emissions target?	Is this target part of an overarching initiative?	Science Based Targets initiative official validation letter	Please explain target coverage and identify any exclusions	Target objective
Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]	Select all that apply: • EP100 • EV100 • Below50 – sustainable fuels • Science Based Targets initiative – approved supplier engagement target • Science Based Targets initiative – approved customer engagement target • Science Based targets initiative – approved other • Reduce short-lived climate pollutants • Remove deforestation • Low-Carbon Technology Partnerships initiative • No, it's not part of an overarching initiative • Other, please specify	[Attachment(s)]	Text field [maximum 2,400 characters]	Text field [maximum 1,500 characters]

20	21
Plan for achieving target, and progress made to the end of the reporting year	List the actions which contributed most to achieving this target
Text field [maximum 2,500 characters]	Text field [maximum 2,500 characters]

[Add row]

Target category and metric (target numerator if reporting an intensity target) (column 5) drop-down options

Energy productivity

- GDP
- USD($) value-added
- units of revenue
- ounces of gold
- ounces of platinum
- metric tons of aggregate
- metric tons of aluminum
- metric tons of steel
- metric tons of cement
- metric tons of cardboard
- metric tons of product
- metric tons of ore processed
- square meters
- kilometers
- passenger kilometers
- revenue passenger kilometers
- liters of product
- units of production
- units of service provided
- square feet
- megawatt hours (MWh)
- barrel of oil equivalents (BOE)
- ton of oil equivalents (TOE)
- ton of coal equivalents (TCE)
- Other energy productivity, please specify

Energy consumption or efficiency

- kWh
- MWh
- GJ
- million Btu
- boe
- toe
- tce
- Gcal

Resource consumption or efficiency

- Percentage of paper from recycled or certified sustainable sources
- metric tons of paper consumed
- Percentage of plastic from recycled sources
- metric tons of plastic consumed
- Percentage of packaging from recycled or certified sustainable sources
- metric tons of packaging consumed
- Other resource consumption or efficiency, please specify

Net emissions target

- Net metric tons CO2e
- Other net emissions target, please specify

Low-carbon vehicles

- Percentage of low-carbon vehicles in company fleet
- Percentage of low-carbon vehicles sold
- Percentage of company fleet using biofuel
- Percentage of battery electric vehicles in company fleet
- Percentage of conventional hybrids in company fleet
- Percentage of plug-in hybrids in company fleet
- Percentage of fuel cell electric vehicles in company fleet
- Percentage of company facilities with electric vehicle infrastructure
- Other low-carbon vehicles, please specify

Low-carbon buildings

Methane reduction target

- cubic meters of methane vented
- cubic meters of methane leaked
- cubic meters of methane flared
- Total methane emissions in m3
- Total methane emissions in CO2e
- Methane leakage rate (%)
- Other methane reduction target, please specify

Fossil fuel reduction target

- cubic meters of natural gas consumed
- metric tons of coal consumed
- barrels of oil consumed
- Percentage of fossil fuels in the fuel mix
- Other fossil fuel reduction target, please specify

Engagement with suppliers

- Percentage of suppliers (by emissions) disclosing their GHG emissions
- Percentage of suppliers (by procurement spend) disclosing their GHG emissions
- Percentage of suppliers (by emissions) setting emissions reduction targets
- Percentage of suppliers (by procurement spend) setting emissions reductions targets
- Percentage of suppliers (by emissions) with a science-based target
- Percentage of suppliers (by procurement spend) with a science-based target
- Percentage of suppliers (by emissions) actively engaged on climate-related issues
- Percentage of suppliers (by procurement spend) actively engaged on climate-related issues
- Other engagement with suppliers, please specify

• Other energy consumption or efficiency, please specify Renewable fuel production • metric tons of solid biomass • liters of liquid biofuel • cubic meters of biogas • cubic meters of hydrogen • Other renewable fuel production, please specify Renewable fuel consumption • metric tons of solid biomass • liters of liquid biofuel • cubic meters of biogas • cubic meters of hydrogen • Percentage of total fuel consumption that is from renewable sources • Other renewable fuel consumption, please specify Waste management • metric tons of waste diverted from landfill • metric tons of waste recycled • metric tons of waste reused • metric tons of waste generated • Percentage of total waste generated that is recycled • Percentage of sites operating at zero-waste to landfill • Other waste management, please specify	• Percentage of net zero carbon buildings • Percentage of net zero energy buildings • Percentage of buildings with a green building certificate • Other low-carbon buildings, please specify Low-carbon products • Total sales revenue from low-carbon products (in currency) • Percentage of revenue from low-carbon products • Percentage of low-carbon products in organization's portfolio • Percentage of products made from recycled or certified sustainable materials • Percentage of products with low-carbon packaging • Other low-carbon products, please specify Land use change • hectares reforested • hectares afforested • hectares restored • Percent of value chain compliant with zero gross deforestation • Other land use change, please specify Beyond Value Chain Mitigation target • GHG emissions reductions and removals • Volume of finance deployed to BVCM • Share of revenue deployed to BVCM • Share of profit deployed to BVCM	Engagement with customers • Percentage of customers (by emissions) disclosing their GHG emissions • Percentage of customers (by emissions) setting emissions reduction targets • Percentage of customers (by emissions) with a science-based target • Percentage of customers (by emissions) actively engaged on climate-related issues • Other engagement with customers, please specify R&D investments • Percentage of annual revenue invested in R&D of low-carbon products/services • Capital invested in R&D of low-carbon products/services (in currency) • Percentage of R&D budget/portfolio dedicated to low-carbon products/services • Other R&D investments, please specify Green finance • Total amount of green bonds outstanding (green bond ratio) • Percentage of green bonds • Total amount of green debt instruments outstanding (green debt ratio) • Percentage of green debt instruments • Green finance raised and facilitated (denominated in currency) • Green investments (denominated in currency) • Percentage of green investments • Other green finance, please specify Other • Other metric, please specify

Target denominator (intensity targets only) (column 7) drop-down options		
• KWh • MWh • GJ • Btu • boe • toe • tce • Gcal • revenue passenger kilometer • USD($) value-added • square meter • metric ton of aluminum • metric ton of steel • metric ton of cement	• metric ton of cardboard • unit revenue • unit FTE employee • unit hour worked • metric ton of product • liter of product • unit of production • unit of service provided • square foot • kilometer • passenger kilometer • megawatt hour (MWh) • barrel of oil equivalent (BOE) • vehicle produced	• metric ton of ore processed • ounce of gold • ounce of platinum • metric ton of aggregate • billion (currency) funds under management • hectare • metric ton of waste • liter of fuel • year • total amount of bonds outstanding at the end of the reporting period • total amount of debt outstanding at the end of the reporting period • Other, please specify

Requested content	General • To correctly report the progress against a maintenance target, i.e. a target to maintain a certain level of performance (e.g. to maintain a zero waste to landfill target for 100% of sites), you should treat it as a target to be met every year. In this case, the "base year" corresponds to the base year of the target that is being maintained and "target year" corresponds to the reporting year If you are a member of the EP100 and/or EV100 initiative, you can use this question to report on your progress towards achieving your target. • If you have interim targets, use the "Add Row" function to provide details about them separately. Target reference number (column 1) • Select a unique target reference from the drop-down menu provided to identify this target in subsequent questions and to track progress against this target in subsequent reporting years. Date target was set (column 2) • Enter the date on which your company has set the target. • This must be either before or during the reporting year but cannot be after the reporting year. It also cannot be after the end date of the target . • For year-on-year rolling targets, enter the date that you first set the target. This can be before the base year. • If the target was set based on financial years, enter the date year that applies to the end of your financial year and specify this in column 18 " Explain target coverage and identify any exclusions" . • If you do not know the exact date on which your company set the target, enter the end of the year that your target was set. Target coverage (column 3) • If your target applies to the whole organization, select "Organization-wide". Note that " organization" refers collectively to all the companies, businesses, organizations, other entities or groups that fall within your definition of the reporting boundary. • If your target does not relate to the whole organization, select the option that best describes the coverage of the target, and provide further details in column 18 " Explain target coverage and identify any exclusions" . • E.g. if your target relates applies only to your office-based operations, select "Business activity". Target type: absolute or intensity (column 4) • Select whether the target is an absolute or an intensity target, regardless of whether you measure it in absolute (e.g. MWh) or relative (%) values. E.g. if your target is to increase the percentage of low-carbon vehicles in the company fleet, select "absolute". Target category and metric (target numerator if reporting an intensity target) (column 5)

- Select the metric relevant to the target – for intensity targets this will be the target numerator.
- Note that a selection must be made for both column 5a and column 5b.

Target denominator (intensity targets only) (column 6)

- This column will only appear if you selected "Intensity" in column 4 "Target type: absolute or intensity".
- Select the metric denominator of your climate-related intensity target.

End date of base year (column 7)

- The base year cannot be after the reporting year.
- The base year is the year against which you are comparing your target.
- If you have a year-on-year rolling target, the end date of your base year will be within the previous reporting year.
- If you have a maintenance target, your base year will be the same as the base year of the target that is being maintained. If your maintenance target was set without any prior increase or decrease, your base year will be the current reporting year.
- If you have a target based on financial years, enter the date that applies to the end of your financial year and specify this in column 18 " Explain target coverage and identify any exclusions" .
- If you have a target based on average emissions over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify this in column 18 " Explain target coverage and identify any exclusions" .

Figure or percentage in base year (column 8)

- Enter the base year value for your target. Note that this will be a percentage if you have selected any percentage option as your metric in column 5b.
- E.g. if your target is to increase the percentage of low-carbon vehicles in the company fleet to 60% by the end of 2021, compared with 40% low-carbon vehicles in the company fleet in a base year of 2016, enter 40 in this column.
- If you have a maintenance target with a base year that is the same as the reporting year, enter 0 (or 0%), as your performance for this target is reset at the beginning of every reporting year.
- If reporting a net emissions target, give the net figure or percentage, i.e. total emissions after any deductions or other adjustments are made to take account of carbon credits and/or other removals.

End date of the target (column 9)

- Enter the date that the target ends. For example, if the target is to reduce methane emissions by 50% by the end of 2030, the end date is 31st December 2030.
- If you have a year-on-year rolling target or maintenance target, the end date of your target will be within the reporting year.
- If you have a target based on financial years, enter the date that applies to the end of your financial year and specify in the "Explain target coverage and identify any exclusions" column.
- If you have a target based on an average over a period of time (e.g. 5-year average), enter the date that applies to the end of the average period and specify in column 18 " Explain target coverage and identify any exclusions" .

- You should not report any target that was achieved before the start of the reporting year.

Figure or percentage at end date of target (column 10)

- Enter the targeted figure or percentage value at the end date of your target.
- E.g. if your target is to increase the percentage of low-carbon vehicles in your company fleet to 60% by the end of 2021, compared with 40% low-carbon vehicles in the company fleet in a base year of 2016, enter 60 in this column.
- If reporting a net emissions target, give the net figure or percentage, i.e. total emissions after any deductions or other adjustments are made to take account of carbon credits and/or other removals.

Figure or percentage in reporting year (column 11)

- Enter the reporting year value for your target.
- E.g. if your target is to increase the percentage of low-carbon vehicles in your company fleet to 60% by the end of 2021, compared with 40% low-carbon vehicles in the company fleet a base year of 2016, and in the reporting year you have achieved 55% low-carbon vehicles in the company fleet, enter 55 in this column.
- If reporting a net emissions target, give the net figure or percentage, i.e. total emissions after any deductions or other adjustments are made to take account of carbon credits and/or other removals.

% of target achieved relative to base year [auto-calculated] (column 12)

- This column will be auto-calculated .
- The target's percentage completion compared with the base year will be calculated from the "Figure or percentage in base year" (column 8), "Figure or percentage at end of target " (column 10), and the "Figure or percentage in reporting year" (column 11) columns. Ensure you have entered data into these columns.

$$\frac{(Figure\ or\ percentage\ in\ reporting\ year) - Figure\ or\ percentage\ in\ base\ year)}{(Figure\ or\ percentage\ at\ end\ date\ of\ target) - (Figure\ or\ percentage\ in\ base\ year)} * 100\%$$

- E.g. if your target is to increase the percentage of low-carbon vehicles in your company fleet to 60% by the end of 2021, compared with 40% low-carbon vehicles in the company fleet in a base year of 2016, and in the reporting year you have achieved 55% low-carbon vehicles in the company fleet, this column will display 75, as you have achieved 75% of your targeted % increase in low-carbon vehicles compared with the base year.
- Negative values indicate that you have made negative progress towards your target. E.g. in the above example, that you have reduced the percentage of low-carbon vehicles in the company fleet, when compared with the base year.
- Values greater than 100% indicate that you have exceeded your target.

Target status in reporting year (column 13)

- New - Select this option for targets that have been set in the reporting year and are still in progress.
- Underway - Select this option for targets that were set before the reporting year, with an end date in the future, that have not been achieved and continue to be pursued.

	• Achieved - Select this option for targets which have been achieved or exceeded in the reporting year. • Achieved and maintained – Select this option for targets that are in place to maintain a certain level of performance (e.g., to maintain zero waste to landfill for 100% of sites) and this has been achieved in the reporting year. • Expired - Select this option for targets with an end date within the reporting year, that have not been achieved or maintained and have therefore expired in the reporting year. • Revised - Select this option for targets that were set before the reporting year but a revision has been made in the reporting year, for example due to a recalculation or a change to the end date of the target . Note that the target status should be reported as "revised" only for the reporting year when the update was conducted. • Replaced - Select this option for previously reported targets that have been replaced with another target in the reporting year, for example where a facility target has been incorporated into a organization -wide target. • Retired - Select this option for targets with an end date in the future, that have not been achieved, but will no longer be pursued. Provide more information as to why this target was retired in column 18 " Explain target coverage and identify any exclusions" . Explain the reasons for the revision, replacement, or retirement of the target (column 14) • This column is only presented if you select "Revised", "Replaced", or "Retired" in response to column 13 "Target status in reporting year". • Provide details of the revisions, replacement or retirement of the target in the reporting year and the reasons for making these changes. • For SBTi-approved targets, reasons for revisions may include: • Revisions to target data (e.g. recalculation of base year emissions due to divestment, acquisition, mergers, change in boundary, including changes in consolidation approach). • Significant changes to the target data (that could compromise relevance and consistency), triggering a mandatory target recalculation (SBTi criteria 26 and 27). • Updates to the target due to 1) Triggered recalculation of the target; 2) revalidation process when submitting new targets when a company has other targets in place (e.g. due to increasing ambition, achievement of target ahead of time). Is this target part of an emissions target? (column 15) • If the target is part of an emissions reduction target reported in 7.53.1 or 7.53.2, please enter the emissions reduction target reference number here. • If reporting a net emissions target, indicate the gross emissions target this relates to by including the target ID reported in 7.53.1 or 7.53.2. Is this target part of an overarching initiative? (column 16) • If the climate-related target is part of an overarching initiative, select the initiative or select "Other, please specify" to outline the initiative. • "No, it's not part of an overarching initiative" cannot be selected in conjunction with any other response options. Science Based Targets initiative official validation letter (column 17) • This column is only presented if any "Science Based Targets initiative" option is selected in column 16 "Is this target part of an overarching initiative?". • Attach your Science Based Targets initiative (SBTi) validation letter.

Explain target coverage and identify any exclusions (column 18)

- If the target does not apply to the whole organization (i.e. the target coverage is not "Organization-wide"), provide further details of your target coverage in this column. E.g. if you have selected "Country/area/region" in column 3, please specify which countries/areas/regions your target covers.
- You can use this column to identify where you have a financial year or average year-based target.
- If your target is part of a wider carbon neutrality goal, a regulatory requirement, or a longer-term target, you can also explain this here

Target objective (column 19)

- Describe the strategic objective for the target and how it links to your strategy. E.g. the objective of the target may be to meet a regulatory target or reduce the costs of compliance with an emissions trading scheme.

Plan for achieving target, and progress made to the end of the reporting year (column 20)

- This column is only presented if "Underway", "Revised", or "New" is selected in column 13 "Target status in reporting year".
- Describe:
    - How you plan to achieve the target, including any current and anticipated direct or indirect mitigation and adaptation efforts, and list the actions which have contributed most to any progress towards the target.
    - Any planned milestones you have to monitor progress towards achieving your target;
    - How the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target; and
    - The process(es) you use for reviewing the target.
- If your target includes the use of carbon credits, include details on:
    - the extent to which and how carbon credits are planned to be used;
    - the type of credit, if available;
    - which scheme will certify credits bought, if planned; and
    - planned use of credits at the target year, if available.
- Specify any other metrics you use, aside from percentage of target achievement, to monitor target progress and performance.
- If possible, specify your anticipated and/or observed progress curve in this column, i.e.:
- Linear – the rate of progress towards the target is anticipated and/or observed to be steady over time
- Logarithmic – the rate of progress towards the target is anticipated and/or observed to be faster at the start
- Exponential – the rate of progress towards the target is anticipated and/or observed to be faster at the end
- Variable – the rate of progress towards the target is anticipated and/or observed to change from year to year
- If you are not on track to achieve the target, explain how you plan to get back on track.

	List the actions which contributed most to achieving this target (column 21) • This column is only presented if "Achieved" or "Achieved and maintained" is selected in column 14 "Target status in reporting year". Note for oil and gas and coal sector: • If you have a methane-specific emissions reduction target that was not reported in 7.53.1/7.53.2, provide details of your methane-specific emissions reduction target in this question by selecting "Methane reduction target" in column 5a "Target type: Category".
Explanation of terms	• Maintenance target: a target to maintain a certain level of performance, such as the level of emissions reductions achieved after meeting a near-term target (e.g., a target to maintain a 90% reduction in scope 1+2 emissions compared to the base year). • Year-on-year rolling target: a target to achieve a certain level of performance every year (e.g., a target to reduce scope 1 emissions by 5% compared to the previous year).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionniare sector	Question level	All

(7.54.3) Provide details of your net-zero target(s).

Question details	
Question dependencies	• This question only appears if you select "Net-zero target(s)" in response to 7.54.
Change from last year	• Modified guidance
Rationale	• Reaching net-zero emissions at the global level is a central goal of the climate action movement. Corporate net-zero targets are a powerful opportunity for organizations to reduce their emissions along a 1.5C aligned pathway and counterbalance any residual emissions at target year with permanent carbon removals (i.e. neutralization). By setting net-zero targets, companies can also accelerate climate action outside their value chains and contribute to reaching the global net-zero goal. This question provides data users with transparency on your organization's commitment to achieving net-zero emissions.
Ambition	Companies make progress against net-zero targets that are in line with the Science Based Targets initiative (SBTi) criteria.
Response options	• Please complete the following table. You are able to add rows by using the "Add Row" function at the bottom of the table.

1	2	3	4	5	6	7
Target reference number	Date target was set	Target coverage	Targets linked to this net zero target	End date of target for achieving net zero	Is this a science-based target?	Science Based Targets initiative official validation letter
Select from: NZ1-NZ100	Date field [enter a date between 01/01/1900 – 19/11/2025]	Select from: • Organization-wide Company-wide • Organization-wide excluding portfolio [FS only] • Business division • Business activity • Site/facility • Country/area/region • Banking (Bank) [FS only] • Investing (Asset manager) [FS only] • Investing (Asset owner) [FS only] • Insurance underwriting (Insurance company) [FS only] • Product-level • Other, please specify	Select all that apply: • Abs1-Abs100 • Int1-Int100 • Por1-Por100 [FS only] • Low1-Low100 • Not applicable	Date field [enter a date between 19/11/2020–31/12/2100]	Select from drop-down options below	[Attachment(s)]

8	9	10	11	12	13
Scopes	Greenhouse gases covered by target	Explain target coverage and identify any exclusions	Target objective	Do you intend to neutralize any residual emissions with permanent carbon removals at the end of the target ?	Do you plan to mitigate emissions beyond your value chain?
Select all that apply: • Scope 1 • Scope 2	Select all that apply: • Carbon dioxide (CO2) • Methane (CH4) • Nitrous oxide (N2O)	Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]	Select from: • Yes • No • Unsure	Select from:

• Scope 3	• Hydrofluorocarbons (HFCs) • Perfluorocarbons (PFCs) • Sulphur hexafluoride (SF6) • Nitrogen trifluoride (NF_3)				• Yes, and we have already acted on this in the reporting year • No, but we plan to within the next two years • No, and we do not plan to within the next two years • No, we do not plan to mitigate emissions beyond our value chain

14	15	16	17	18	19
Do you intend to purchase and cancel carbon credits for neutralization and/or beyond value chain mitigation?	Planned milestones and/or near-term investments for neutralization at the end of the target	Describe the actions to mitigate emissions beyond your value chain	Target status in reporting year	Explain the reasons for the revision, retirement, or replacement of the target	Process for reviewing target
Select all that apply: • Yes, we are currently purchasing and cancelling carbon credits for beyond value chain mitigation • Yes, we plan to purchase and cancel carbon credits for beyond value chain mitigation • Yes, we plan to purchase and cancel carbon credits for neutralization at the end of the target • No, we do not plan to purchase and cancel carbon credits for neutralization and/or beyond value chain mitigation	Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]	Select from: • New • Underway • Achieved • Expired • Revised • Replaced • Retired	Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]

[Add row]

Is this a science-based target? (column 6)
• Yes, and this target has been approved by the Science Based Targets initiative • Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative • Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years • Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years • No, but we are reporting another target that is science-based • No, but we anticipate setting one in the next two years • No, and we do not anticipate setting one in the next two years

Requested content	Target reference number (column 1) • Select a unique target reference from the drop-down menu provided to track progress against this target in subsequent reporting years. Date target was set (column 2) • Enter the date on which your company has set the target. • This must be either before or during the reporting year, but cannot be after the reporting year. It also cannot be after the target year. • For year-on-year rolling targets, enter the date that you first set the target. This can be before the base year. • If the target was set based on financial years, enter the date that applies to the end of your financial year and specify this in column 18 "Explain target coverage and identify any exclusions". • If you do not know the exact date on which your company set the target, enter the end of the year that your target was set. Target coverage (column 3) • If the target applies to the whole company, select "-Organization wide". Note that " organization" refers collectively to all the companies, businesses, organizations, other entities or groups that fall within your definition of the reporting boundary. • Note for Financial Services companies: • Select "Organization-wide" if the target covers all of your operational AND portfolio emissions, including Scope 3 category 15 Investments. • Select "Organization-wide excluding portfolio" if the target only covers your operational Scope 1, Scope 2 and Scope 3 Categories 1 to 14 emissions, excluding emissions associated with your portfolios (the target does not cover emissions associated with your lending, investing and insurance activities) • Some of the target coverage options shown are driven by the organizational activities you selected in 1.10. • If the target does not apply to the whole company, select the option that best describes the coverage of the target, and provide further details in column 10 "Please explain target coverage and identify any exclusions" column; for example, if your target applies only to your European operations, select "Country/area/region" in this column and specify the country/area/region in the column "Please explain target coverage and identify any exclusions"

	Targets linked to this net zero target (column 4) • If the target is linked to an emission reduction targets(s) reported in 7.53.1, 7.53.2 or 7.54.2, select the relevant target reference numbershere. • If you are a financial services discloser, and if the target is linked to a portfolio targets reported in 7.53.4, select the relevant target reference numbers here. • You should generally be reporting at least one near term and one long-term absolute/intensity emission target linked to your net-zero target. Ambitious near-term emissions reductions are the most important component of any net-zero target, but setting and reporting long-term emission reductions targets is also important as these targets will specify the amount of abatement (emission reductions) that your company intends to reach (with the remainder to be neutralized) to reach a state of net-zero. If you have not reported any emission reduction targets in 7.53.1 or 7.53.2 that are linked to this net-zero target, please select "Not applicable" and explain why you are not reporting any linked emission targets in the column 10 " Explain target coverage and identify any exclusions" . • Supplier engagement targets and renewable energy targets reported in 7.54.2 may link to your net-zero targets. Only include these targets if they are contributing to your net zero target. End date of target year for achieving net zero (column 5) • If you have a target based on financial years, enter the date that applies to the end of your financial year and specify in column 10 "Explain target coverage and identify any exclusions" . Is this a science-based target? (column 6) • Please refer to the SBTi's Net-Zero Standard for what qualifies as a science-based net-zero target and how to assess your target against the SBTi's Net-Zero Standard Criteria. • Yes, and this target has been approved by the Science Based Targets initiative – Companies are very strongly encouraged to have their net-zero targets officially evaluated by the Science Based Targets initiative (SBTi). CDP considers net-zero targets approved by the initiative to reflect best practice in science-based net-zero target setting. Select this option only if the net-zero target has been approved by the SBTi. • Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative – If your company has set a net-zero target and has self-assessed it to be science-based, and it has been submitted it to the SBTi for validation and is currently being reviewed by the SBTi, you should select this option. You should use column 10 "Explain target coverage and identify any exclusions" column to explain why you consider your net-zero target to be science-based. • Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years – If your company has set a net-zero target, has self-assessed it to be science-based and intends to submit it to the SBTi for validation in the next two years, you should select this option. You should use column 10 "Explain target coverage and identify any exclusions" Column to explain why you consider your net-zero target to be science-based. If you are currently in the process of revising your net-zero target to meet the SBTi's Net-Zero Standard Criteria, indicate this by selecting "No, but we anticipate setting one in the next 2 years". • Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years – Not all companies intend to have their target assessed by the SBTi. If your company has set a target and has self-assessed it to be science-based but has not committed to submit it to

	the SBTi for validation, you should select this option. You should use column 10 "Explain target coverage and identify any exclusions" column to explain why you consider your target to be science-based. • No, but we are reporting another target that is science-based – Another net-zero target disclosed in a different row in this table is science-based. • No, but we anticipate setting one in the next 2 years – While not necessary, it is recommended that the company publicly state this by submitting a Science Based Target initiative commitment letter. • No, and we do not anticipate setting one in the next 2 years – No science-based net-zero targets have been set and there are no plans in place to set one in the next 2 years. Science Based Targets initiative official validation letter (column 7) • This column only appears if you select "Yes, and this target has been approved by the Science Based Targets initiative " in column 6 "Is this a science-based target?". • Attach your SBTi validation letter. Scopes (column 8) • This refers to the Scopes of emissions to which the target relates. Note that all three scopes must be included for science-based targets following SBTi Net Zero guidance. Greenhouse gases covered by target (column 9) • Select all the greenhouse gases which are relevant to your organization and included in the target. • This column includes the seven greenhouse gases covered by the Kyoto Protocol. For further information on the different greenhouse gases, see the GHG Protocol Corporate Standard Amendment. • If the target has been approved by the SBTi, the gases reported should match those which were reported to the SBTi. Explain target coverage and identify any exclusions (column 10) • If the target does not apply to the whole organization (i.e. the target coverage is not "Organization-wide"), provide further details of your target coverage in this column; for example, if you have selected "Country/area/region" in column 2, please specify which countries/areas/regions your target covers. • Describe how the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target.If there is a difference between your inventory base year emissions and this target's base year emissions, explain why. • If you have self-assessed your net-zero target to be science-based but it has not been approved by the SBTi, please explain why you consider your target to be science-based. • If you have not reported any emission reduction targets that are linked to this net-zero target, please explain why not. Target objective (column 11) • Describe the strategic objective for the target and how it links to your strategy. E.g. the objective of the target may be to meet a regulatory target or reduce the costs of compliance with an emissions trading scheme.

	Do you intend to neutralize any residual emissions with permanent carbon removals at the end of the target ? (column 12) • Although most companies will reduce emissions by at least 90% through their emissions reduction targets, some residual emissions may remain at the target date . • Indicate whether your organization intends to neutralize these residual emissions through the permanent removal and storage of carbon from the atmosphere when the net-zero target date is reached. See "Explanation of terms" for more information. Do you plan to mitigate emissions beyond your value chain? (column 13) • Beyond value chain mitigation (BVCM) covers emissions mitigation actions falling outside of your company's value chain. • See the Explanation of Terms, and the SBTi BVCM guidance for more details. Do you intend to purchase and cancel carbon credits for neutralization and/or beyond value chain mitigation (column 14) • This column is only presented if "Yes" is selected in column 12 "Do you intend to neutralize any residual emissions with permanent carbon removals at the end of the target?" or a "Yes" option is selected in column 13 "Do you plan to mitigate emissions beyond your value chain?". Planned milestones and/or near-term investments for neutralization at the end of the target (column 15) • This column is only presented if "Yes" is selected in column 12 "Do you intend to neutralize any residual emissions with permanent carbon removals at the end of the target?" . • Indicate the magnitude of emissions that you plan to neutralize at the net-zero target date , and describe any planned milestones and/or near-term investments that demonstrate the integrity of your commitment to neutralize residual emissions at in the end date of the target year. • For example, you may be investing or planning to invest into carbon dioxide removal and storage technologies (e.g. Direct Air Capture) in the near-term. • If your target includes the use of carbon credits, include details on: • The extent to which and how carbon credits are planned to be used at the target date; • The type of credit, if available; • Which scheme will certify credits bought, if planned; and • Planned use of credits at the target date, if available. Describe the actions to mitigate emissions beyond your value chain (column 16) • In addition to any neutralization actions described in column 8 15 "Planned milestones and/or near-term investments for neutralization at the end of the target" (if applicable), describe any actions your organization has taken in the reporting year, or plans to take between the reporting year and net-zero target date , to accelerate the global net-zero transition beyond your organization's value chain. See "Explanation of terms" for more information. • For example, your organization may be purchasing high quality REDD+ carbon credits that will support countries to achieve or enhance their Nationally Determined Contributions (NDCs). Describe how carbon credits are used or planned to be used. In line with SBTi recommendations, if carbon credits are to be used as the mechanism for BVCM they should be verified by an independent third-party.

	• Describe the method used to determine the nature and scale of commitment for BVCM e.g. ton-for-ton, money-for ton, or money-for-money and the approach take to identify BVCM activities to support. • Provide details of the BVCM your organization has supported or funded in the reporting year, you may indicate any BVCM target reference numbers from 7.54.2. Target status in reporting year (column 17) • New – Select this option for targets that have been set in the reporting year and are still in progress. • Underway – Select this option for targets that were set before the reporting year, with an end date in the future, that have not been achieved and continue to be pursued. • Achieved – Select this option for targets that have been achieved or exceeded in the reporting year. • Expired – Select this option for targets with an end date within the reporting year, that have not been achieved and have therefore expired in the reporting year. • Revised – Select this option for targets that were set before the reporting year but a revision has been made to any of the elements in columns 2 to 79 in the reporting year, for example due to a recalculation of the base year emissions intensity or a change to the end date of the target. • Replaced – Select this option for previously reported targets that have been replaced with another target in the reporting year, for example where a facility target has been incorporated into a organization-wide target. • Retired – Select this option for targets with a target year in the future, that have not been achieved, but will no longer be pursued. Provide more information as to why this target was retired in the "Explain target coverage and identify any exclusions" column. Explain the reasons for the revision, retirement, or replacement to the target (column 18) • This column is only presented if you select "Revised", "Replaced", or "Retired" in response to column 17 "Target status in reporting year". • Provide details of the revisions, retirement or replacement of the target in the reporting year and the reasons for making these changes. • For SBTi-approved targets, reasons for revisions may include: • Revisions to target data (e.g. recalculation of base year emissions due to divestment, acquisition, mergers, change in boundary, including changes in consolidation approach). • Significant changes to the target data (that could compromise relevance and consistency), triggering a mandatory target recalculation (SBTi criteria 26 and 27). • Updates to the target due to 1) triggered recalculation of the target; 2) revalidation process when submitting new targets when a company has other targets in place (e.g. due to increasing ambition, achievement of target ahead of time).
Explanation of terms	• Net-zero target: the SBTi Net-Zero Standard defines corporate net-zero as: 1. Reducing Scope 1, 2 and 3 emissions to zero or to a residual level that is consistent with reaching net-zero emissions at the global or sector level in eligible 1.5°C scenarios or sector pathways and; 2. Neutralizing any residual emissions at the net-zero target date and any GHG emissions released into the atmosphere thereafter. • Neutralization: Measures that companies take to remove carbon from the atmosphere and permanently store it to counterbalance the impact of emissions that remain unabated.

	Neutralization can occur using removals within or beyond the value chain. (Adapted from the SBTi Beyond Value Chain Mitigation FAQ). • Beyond value chain mitigation: Mitigation action or investments that fall outside of a company's value chain. This includes activities that avoid or reduce greenhouse gas emissions, and those that remove and store greenhouse gases from the atmosphere. Examples include purchasing high quality, jurisdictional REDD+ carbon credits that support countries in raising the ambition on and, in the long-term, achieving their nationally determined contributions, or investing in carbon dioxide removal (CDR) technologies such as direct air capture (DAC) with geological carbon storage. (Adapted from the SBTi Beyond Value Chain Mitigation FAQ).

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionniare sector	Question level	All

(7.54.4) Indicate which targets reported in 7.53.1/2 incorporate methane emissions, or if you do not have a methane-specific emissions reduction target for your oil and gas activities, please explain why not and forecast how your methane emissions will change over the next five years.

Question details	
Question dependencies	This question only appears if you did not select "Target(s) to reduce methane emissions" in response to 7.54.
Change from last year	No change
Rationale	Methane emissions from the oil and gas sector are increasingly viewed as a financial, regulatory, and reputational issue for companies. Investors are therefore interested in increasing the transparency of methane reduction efforts. This can be achieved by organizations reporting the methane targets they have in place and how they forecast that their methane emissions will change.
Response options	This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General • If you have reported a separate methane-specific emissions reduction target in 7.53.1 and 7.53.2, specify the target reference number(s) (from column 1 of 7.53.1 and 7.53.2) and provide details of the methane reduction target. A methane-specific target is any target to reduce specifically methane (CH4) emissions e.g. reduction of leakage, venting or flaring of methane. • If methane emissions were incorporated into targets reported in 7.53.1 and 7.53.2, specify the relevant target reference number(s) (from column 1 of 7.53.1 and 7.53.2) and provide details of the methane reduction component of that target in the base year (column 11 of 7.53.1 and/or column 12 of 7.53.2) • If your organization does not have a methane-specific emissions reduction target for oil and gas activities, you are requested to provide a company specific description regarding why

	not and provide information on how you forecast your methane emissions will change over the next five years here. • If methane emissions are not applicable to your organization, please explain this here.
Additional information	This question uses negative conditional logic i.e. it only appears if "Targets to reduce methane emissions" is NOT selected in 7.54.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionniare sector	Question level	OG

(7.54.5) Indicate which targets reported in 7.53.1/2 incorporate methane emissions, or if you do not have a methane-specific emissions reduction target for your coal mining activities, please explain why not and forecast how your methane emissions will change over the next five years.

Question details	
Question dependencies	This question only appears if you did not select "Target(s) to reduce methane emissions" in response to 7.54.
Change from last year	No change
Rationale	Methane emissions from the coal sector are increasingly viewed as a financial, regulatory, and reputational issue for companies. Investors are therefore interested in increasing the transparency of methane reduction efforts which can be achieved by organizations reporting the methane targets they have in place and how they forecast that their methane emissions will change.
Response options	This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General • If you have reported a separate methane-specific emissions reduction target in 7.53.1 and 7.53.2, specify the target reference number(s) (from column 1 of 7.53.1 and 7.53.2) and provide details of the methane reduction target. A methane-specific target is any target to reduce specifically methane (CH4) emissions e.g. reduction of leakage, venting or flaring of methane. • If methane emissions were incorporated into targets reported in 7.53.1 and 7.53.2, specify the relevant target reference number(s) (from column 1 of 7.53.1 and 7.53.2) and provide details of the methane reduction component of that target, including the percentage that methane emissions comprise in the total emissions covered by the target in the base year (column 11 of 7.53.1 and/or column 12 of 7.53.2) • If your organization does not have a methane-specific emissions reduction target for your coal mining activities, you are requested to provide a company-specific description regarding why not and provide information on how you forecast your methane emissions will change over the next five years here. • If methane emissions are not applicable to your organization, please explain this here.

Additional information	This question uses negative conditional logic i.e. it only appears if "Targets to reduce methane emissions" is NOT selected in 7.54.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionniare sector	Question level	CO

Emission reduction initiatives

(7.55) 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.

Question details	
Change from last year	• No change
Rationale	• The answer to this question enables CDP data users to understand your organization's commitment to reducing emissions beyond business-as-usual scenario (beyond standard maintenance/replacement activities).
Response options	Select one of the following options: • Yes • No

Requested content	General • It is acknowledged that maintenance activities can have a beneficial impact on carbon emissions. Only activities that have either been part of a defined program of emissions reduction activities or where additional investment beyond standard maintenance/replacement has been made for the purposes of reducing emissions should be reported here. • It is acknowledged that diverse companies often have large number of emissions reduction initiatives operating over varying time periods and scales. You should answer this question in the context of the reporting year. This could include initiatives that have become operational within the reporting year (e.g. installation of new equipment, or instigation of new operational practices) or commitments that have been made in the reporting year (e.g. investments made which are yet to become fully operational). • If you are reporting a market-based Scope 2 figure, you can reflect any renewable energy purchasing policies as a component of emissions reduction activities. Please bear in mind, however, that if you are already buying renewable energy instruments and accounting for them at a zero emissions factor, then emissions reduction activities can only be achieved as "additional purchases" to what you are already doing. Therefore, emissions reduction activities are established by comparing what you have done in the previous year and what you are proposing to do in the future. • Measures taken to reduce Scope 3 emissions may be reported here. • Initiatives do not need to relate to specific targets reported in 7.53.1 and 7.53.2.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

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

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.55.
Change from last year	• Minor change
Rationale	• This question demonstrates to CDP data users your organization's progress towards reducing emissions through implementing emissions reduction initiatives.
Response options	•

1	2	3
Stage of development	Number of initiatives	Total estimated annual CO_2e savings in metric tons CO_2e
Under investigation	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places and no commas]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places and no commas]
To be implemented		
Implementation commenced		
Implemented		
Not to be implemented		

[Fixed row]

Requested content	Stage of development (column 1)
	• Report the initiatives in the following stages of development:
	  ○ Under investigation: A potential initiative to reduce emissions that is being evaluated but not yet approved by your company during the reporting year.
	  ○ To be implemented: An initiative to reduce emissions that has been approved for implementation by your company but its implementation has not yet commenced during the reporting year.
	  ○ Implementation commenced: An initiative to reduce emissions was started/activated in the reporting year, but by the end of the reporting period it was not yet fully active/functional in realizing emissions reductions.
	  ○ Implemented: An initiative that has fully come into effect in the reporting year e.g. it has become fully operational/functional in realizing CO_2e savings.

	○ Not to be implemented: A potential initiative to reduce emissions that was evaluated but not pursued by your company during the reporting year. • Companies should report on these stages of development in the context of the reporting year. Unless the project was new to one of the stages of development in the reporting year, it should not be reported. Number of initiatives (column 2) • Where there are no projects in a stage of development, state 0 (zero). This column should be completed for all rows. Total estimated annual CO_2e savings in metric tons CO_2e (column 3) • It is acknowledged that the CO_2e savings will be an estimate. More detail is requested on individual initiatives (or programs of activity) that have been implemented in the reporting year in7.55.2. Initiatives do not need to relate to specific targets disclosed in the questionnaire.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.55.2) Provide details on the initiatives implemented in the reporting year in the table below.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.55.
Change from last year	Minor change
Rationale	CDP data users are interested in understanding how you are making progress towards your emissions reduction targets, as well as other emissions-reducing actions undertaken in the reporting year.
Response options	Please complete the following table. The table is displayed over several rows for readability. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3	4
Initiative category & Initiative type	Estimated annual CO2e savings (metric tons CO2e)	Scope(s) or Scope 3 category(ies) where emissions savings occur	Voluntary/ Mandatory
Grouped dropdowns (single-select group; single-	Numerical field [enter a number	Select all that apply: • Scope 1	Select from: • Voluntary

select option) from dropdown list below • Energy efficiency in buildings Energy efficiency in production processes • Waste reduction and material circularity • Fugitive emissions reductions • Low-carbon energy consumption • Low-carbon energy generation • Non-energy industrial process emissions reductions • Company policy or behavioral change • Transportation • Other, please specify	from 0-999,999,999,999 using a maximum of 2 decimal places and no commas]	• Scope 2 (location-based) • Scope 2 (market-based) • Scope 3 category 1: Purchased goods & services • Scope 3 category 2: Capital goods • Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) • Scope 3 category 4: Upstream transportation & distribution • Scope 3 category 5: Waste generated in operations • Scope 3 category 6: Business travel • Scope 3 category 7: Employee commuting • Scope 3 category 8: Upstream leased assets • Scope 3 category 9: Downstream transportation and distribution • Scope 3 category 10: Processing of sold products • Scope 3 category 11: Use of sold products • Scope 3 category 12: End-of-life treatment of sold products • Scope 3 category 13: Downstream leased assets • Scope 3 category 14: Franchises • Scope 3 category 15: Investments [does not appear to FS] • Scope 3: Other (upstream) • Scope 3: Other (downstream)	• Mandatory

5	6	7	8	9
Annual monetary savings (unit currency – as specified in 1.2)	Investment required (unit currency – as specified in 1.2)	Payback period	Estimated lifetime of the initiative	Comment
Numerical field [enter a number from 0-999,999,999,999,999 using no decimal places, and no commas]	Numerical field [enter a number from 0-999,999,999,999,999 using no decimal places, and no commas]	Select from: • <1 year • 1-3 years • 4-10 years • 11-15 years • 16-20 years • 21-25 years • >25 years • No payback	Select from: • <1 year • 1-2 years • 3-5 years • 6-10 years • 11-15 years • 16-20 years • 21-30 years • >30 years • Ongoing	Text field [maximum 1,500 characters]

[Add row]

Initiative type (column 2)	
Energy efficiency in buildings • Insulation • Maintenance program • Draught proofing	Low-carbon energy consumption • Solid biofuels • Liquid biofuels • Biogas

• Solar shading • Building Energy Management Systems (BEMS) • Heating, ventilation and air conditioning (HVAC) • Lighting • Motors and drives • Combined heat and power (cogeneration) • Other, please specify Energy efficiency in production processes • Waste heat recovery • Cooling technology • Process optimization • Fuel switch • Compressed air • Combined heat and power (cogeneration) • Wastewater treatment • Reuse of water • Reuse of steam • Machine/equipment replacement • Automation • Electrification • Smart control system • Motors and drives • Product or service design • Other, please specify Waste reduction and material circularity • Waste reduction • Product or service design • Product/component/material reuse • Product/component/material recycling • Remanufacturing • Other, please specify Fugitive emissions reductions • Agricultural methane capture • Agricultural nitrous oxide reduction • Landfill methane capture • Oil/natural gas methane leak capture/prevention • Refrigerant leakage reduction • Carbon capture and storage/utilization (CCS/U) • Other, please specify	• Geothermal • Large hydropower (>25 MW) • Small hydropower (<25 MW) • Hydropower (capacity unknown) • Renewable hydrogen fuel cell • Solar heating and cooling • Solar PV • Solar CSP • Nuclear • Wind • Tidal • Wave • Fossil fuel plant fitted with CCS • Low-carbon electricity mix Other, please specify Low-carbon energy generation • Solid biofuels • Liquid biofuels • Biogas • Geothermal • Large hydropower (>25 MW) • Small hydropower (<25 MW) • Hydropower (capacity unknown) • Renewable hydrogen fuel cell • Nuclear • Solar heating and cooling • Solar PV • Solar CSP • Wind • Tidal • Wave • Fossil fuel plant fitted with CCS • Other, please specify Non-energy industrial process emissions reductions • Process equipment replacement • Process material substitution • Process material efficiency • Carbon capture and storage/utilization (CCS/U) • Other, please specify Company policy or behavioral change • Supplier engagement • Customer engagement • Site consolidation/closure • Change in purchasing practices Resource efficiency • Waste management • Other, please specify Transportation • Business travel policy • Teleworking • Employee commuting • Company fleet vehicle replacement • Company fleet vehicle efficiency • Other, please specify

Requested content	General • Companies are asked to provide information on any emissions reduction initiatives made. • There is no need to record every action – initiatives can be recorded on a programmatic level. Companies with large numbers of initiatives should prioritize those that have the potential to provide a meaningful contribution to emissions reductions. • It is acknowledged that maintenance activities can have a beneficial impact on carbon emissions. Only those activities that have either been part of a defined program of emissions reduction initiatives or where additional investment beyond standard maintenance/replacement has been made for the purposes of reducing emissions should be reported here. • Where initiatives are part of routine maintenance or necessary equipment replacement (e.g. necessary replacement of equipment that has an additional benefit in emissions reduction), enter the additional (premium) costs and additional monetary savings associated with the lower emissions model (if applicable). • It should be noted that not all emissions reduction initiatives carry with them a significant cost – many initiatives, such as resource efficiency, have fairly negligible investment costs yet offer potentially high monetary savings. These initiatives should be included in the table, with the minimal investment required reflected in the "Investment required" column, and by selecting the payback of less than a year option (if this is the case). Initiative category (column 1) • Select the option from the drop-down list that best describes the initiative. Note that these are broad categories only, with more detailed options provided in the "Initiative type" column. • Energy efficiency in buildings – Select this option for all energy efficiency initiatives relating to buildings, including those relating to the building fabric (e.g. insulation, draught-proofing, etc.) and those relating to building services (e.g. HVAC, BEMS etc.) • Energy efficiency in production processes – Select this option for all energy efficiency initiatives relating to processes (e.g. waste heat recovery, process optimization, compressed air, combined heat and power, automation, smart control systems, product/service design to improve energy efficiency etc.) • Waste reduction and material circularity – Select this option for circular economy and waste reduction initiatives (e.g. reuse, recycling, remanufacturing, product/service design to reduce waste etc.). • Fugitive emissions reductions – Select this option for initiatives to reduce fugitive emissions (e.g. methane capture, agricultural nitrous oxide reductions, refrigerant leakage reduction etc.) • Low-carbon energy consumption – Select this option for emissions reduction initiatives relating to increasing low-carbon energy consumption i.e. energy from renewable sources, nuclear plants and fossil-fuel plants fitted with carbon capture and storage. Note that if increasing low carbon energy consumption has been a component of your emissions reduction initiatives please also report the other accompanying information in 7.3, 7.7, , and section Energy-Related Activities. If you select "Solid biofuels", "Liquid biofuels", or "Biogas" you should specify whether any of the biofuels are derived from sustainable biomass and/or if they are being used for bioenergy with carbon capture and storage (BECCS) in the "Comment" column (column 10). Refer to CDP's Technical note on Biofuels for more information. Members of the RE100 initiative selecting this option should ensure to enter a figure in column 6 "Annual monetary savings". • Low-carbon energy generation – Select this option for initiatives relating to the installation of low-carbon energy generating facilities (renewable, nuclear or fossil-fuel plants fitted with

	carbon capture and storage) at your own site or at others on behalf of your clients. If you select "Solid biofuels", "Liquid biofuels", or "Biogas" you should specify whether any of the biofuels are derived from sustainable biomass and/or if they are being used for bioenergy with carbon capture and storage (BECCS) in the "Comment" column (column 10). Refer to CDP's Technical note on Biofuels for more information. Members of the RE100 initiative selecting this option should ensure to enter a figure in column 6 "Annual monetary savings". • Non-energy industrial process emissions reductions – Select this option only for initiatives to reduce emissions from industrial production processes which chemically or physically transform materials (e.g. CO_2 from the calcinations step in cement manufacturing, CO_2 from catalytic cracking in petrochemical processing, PFC emissions from aluminum smelting etc.) • Company policy or behavioral change – Select this option for initiatives relating to a change in company policy (e.g. value chain engagement, a new procurement policy) or an organizational behavioral change (e.g. resource efficiency improvements such as reducing paper use, waste management improvements such as reducing food waste etc.). Note that changes in company transportation policies should not be reported here but under the initiative category "Transportation". • Transportation – Select this option for initiatives relating to employee travel and commuting and the company fleet. • Other, please specify – If none of the listed categories are applicable to your initiative, select this option and specify the initiative. • Note that a selection must be made for both column 1 and column 2. Your data will not be saved if either column is left blank. Initiative type (column 2) • Select the type of initiative you have undertaken from the drop-down options provided. Note that only initiative types relative to the initiative category selected in the previous column will be displayed in the portal. • If none of the provided options are applicable to your initiative, select "Other, please specify" and provide details of the initiative type. • Note that a selection must be made for both column 1 and column 2. Your data will not be saved if either column is left blank. Estimated annual CO2e savings (metric tons CO2e) (column 3) • Enter the expected annual CO_2e savings in all emission Scopes, in metric tons, occurring with the initiative in place. It is acknowledged that this figure is likely to be an estimate. • Where savings occur on a non-annual basis, average the savings so that an annual figure can be provided. • Where the initiative has not been in place for the entire reporting period, estimate and report the emissions that would be saved in a 12-month period, so that an annual figure can be provided. Scope(s) (column 4) • The "Scope 2 (market-based)" dropdown only appears if you select "We are reporting a Scope 2, market-based figure" in column "Scope 2, market-based" of 7.3. • Select the Scope(s) and/or Scope 3 categories where the emission reductions are expected to occur.

	• If the initiative covers multiple Scopes, select all Scopes and Scope 3 categories where emissions reductions are expected to occur.
	
	Voluntary/Mandatory (column 5)
	
	• Select whether the initiative is mandatory (i.e. to comply with regulation), or a voluntary initiative.
	
	Annual monetary savings (unit currency – as specified in 1.2) (column 6)
	
	• Enter the amount of monetary savings per year expected from the initiative (e.g. in reduced energy costs) once it is fully operational.
	• The number entered should be appropriate to the currency selected in 1.2.
	• Where savings occur on a non-annual basis, please average out so that an annual figure can be provided.
	
	Investment required (unit currency – as specified in 1.2) (column 7)
	
	• Enter the total investment required for the initiative over its lifetime.
	• The number entered should be appropriate to the currency selected in question1.2.
	
	Payback period (column 8)
	
	• The payback period reflects the time it takes for the investment made to be offset by the monetary savings from the initiative (Payback Period = Investment/Annual monetary savings).
	• The payback period is not applicable (therefore select "No payback") if:
	  o the initiative does not require any investment and you have entered 0 (zero) in column 7 (Investment required (unit currency, as specified in1.2)) AND/OR
	  o the initiative does not bring any monetary savings and you have entered 0 (zero) in column 6 (Annual monetary savings (unit currency – as specified in 1.2)
	
	Estimated lifetime of the initiative (column 9)
	
	• This column refers to the duration of cash flow savings from carbon mitigation investments. This data point, in years, allows data users to calculate the Internal Rate of Return of the project, also using the “Annual monetary savings,” “Investment required” and “Payback period” information.
	• If you have multiple emissions reduction initiatives for each initiative type, select the median to answer this column.
	
	Comment (column 10) (optional)
	
	• If you select “Solid biofuels”, “Liquid biofuels”, or “Biogas” as the “Initiative type” (column 2), specify whether any of the biofuels are derived from sustainable biomass here.

Requested content – [sector] (if applicable)	Note for electric utility sector companies: • For electric utilities, emissions reduction initiatives may include fuel switching at existing plants or investment in lower-emitting methods of generation. Please disclose this information if applicable.

	Note for agricultural sector companies:
	• Agricultural sector companies are specifically asked to report on initiatives implemented to reduce emissions from agricultural/forestry, processing/manufacturing activities.E.g.:
	  ○ Adoption of low impact agriculture/forestry practices
	  ○ Increased efficiency of energy use during manufacturing
	  ○ Reduced fleet use of fossil fuels or increased use of renewable fuels in transportation

Explanation of terms	• Building energy management system (BEMS): An integrated system comprising hardware, software, and services that leverage information and communication technology for monitoring, automating, and controlling energy consumption. Examples include smart meters and smart billing, data analytics, performance optimization and others. • Low-carbon energy: In line with the IEA definition, low-carbon technologies are technologies that produce low – or zero – greenhouse-gas emissions while operating. In the power sector this includes fossil-fuel plants fitted with carbon capture and storage, nuclear plants and renewable-based generation technologies. Natural gas, combined cycle gas turbine and fossil fuel-based combined heat and power (cogeneration), despite being less carbon intensive than other means of electricity production like coal, are not considered low-carbon. • Renewable energy: energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy and sustainable biofuels (adapted from the GHG protocol, 2004). • Process emissions: emissions from industrial production processes which chemically or physically transform materials (e.g. CO2 from the calcinations step in cement manufacturing, CO2 from catalytic cracking in petrochemical processing, PFC emissions from aluminum smelting, etc.)

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.55.3) What methods do you use to drive investment in emissions reduction activities?

Question details	
Question dependencies	• This question only appears if you select "Yes" in response to 7.55.
Change from last year	• No change
Rationale	• This question provides data users with more transparency into your organization's approach to realizing emissions reductions and progress towards targets.
Response options	

1	2
Method	Comment

Select from: • Compliance with regulatory requirements/standards • Dedicated budget for energy efficiency • Dedicated budget for low-carbon product R&D • Dedicated budget for other emissions reduction activities • Employee engagement • Financial optimization calculations • Internal price on carbon • Internal incentives/recognition programs • Internal finance mechanisms • Lower return on investment (ROI) specification • Marginal abatement cost curve • Partnering with governments on technology development • Other	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • This question is intended to gather information on the ways in which capital is directed towards emissions reduction activities within your organization, and/or the way in which initiatives are identified. If your organization uses an internal carbon price you are encouraged to report this here in addition to inmodule 5 "Business strategy" section "Pricing Environmental Externalities" . Method (column 1) • Select the types of methods that you employ to help to channel funds towards emissions reduction initiatives. Comment (column 2) (optional) • Provide additional details or examples as necessary.
Additional information	Marginal Abatement Cost Curves Marginal Abatement Cost Curves, or MACCs, provide a method of evaluating potential emissions reduction activities. They provide a visual comparison of the marginal abatement costs for different projects. MACCs can be generated to evaluate options at any level of organization – from individual business divisions, to the overall business and to sectors and countries/areas, evaluating individual projects, programs or policies. Marginal abatement costs are calculated by dividing the costs of the project (calculated from the initial cost minus any savings made as a result of the project) by the greenhouse gas emissions saved over a specified investment timeframe. $MAC = \frac{\text{Initial costs} - \text{savings generated}}{\text{GHG emissions saved}}$ These are then arranged with the lowest costs (sometime negative cost) on the left, increasing in cost to the right, creating the curve. An example taken from McKinsey & Company "Impact of the financial crisis on carbon economics: Version 2.1 of the global greenhouse gas abatement cost curve"

	Those projects/initiatives where there are cost savings to be made over the lifetime of the project as a result of the emissions savings made, and therefore, even without a commitment to carbon reduction investment, should be implemented from a cost saving point of view. Where positive costs are associated with the proposals the MACC curve can be used to suggest the lowest cost options for achieving a particular target (McKinsey & Company, 2010, page 8). As with all evaluation methods, the accuracy of the MACC will depend on that of the input data.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.55.4) Why did you not have any emissions reduction initiatives active during the reporting year?

Question details	
Question dependencies	• This question only appears if you select "No" in response to 7.55.
Change from last year	• No change
Rationale	• Emissions reduction initiatives are crucial to meeting emissions targets and reducing negative environmental impacts. CDP data users need to know why you do not engage in the best practice of actively reducing your emissions.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General • Provide a company-specific explanation as to why you do not have any emissions reduction initiatives active in the reporting year, and if you have any plans to implement them in the future. If you plan to implement emissions reduction initiatives in the future, estimate a timeframe of when you will begin to implement them. • If you do not have emissions reduction initiatives active in the reporting year because you have not identified any, provide more information regarding your process for identifying potential initiatives. E.g. if you investigated an area of organizational activities but the investigation did not result in potential initiatives, provide information on your investigations and explain why emissions reduction initiatives did not come to fruition.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	All

(7.56) Describe any planned climate-related projects within your public authority for which you hope to attract financing.

Question details	
Change from last year	Modified guidance
Rationale	Data users are interested in learning about your organization's plans for climate resilient, sustainable, and equitable infrastructure projects. Your response to this question will allow CDP data users to see, in one place, details of resilient infrastructure projects for which you are seeking funding and/or financing to enhance partnership and resource allocation, and connect eligible projects to technical assistance, where possible.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" function at the bottom of the table.

1	2	3	4	5	6	7
Project area	Project title	Stage of project development	Status of financing	Identified financing model	Project description, and URL link, if applicable	Attach project proposal, if applicable
Select from: • Buildings • Energy efficiency (including public lighting) • Renewable energy • Transport • Waste management (including waste recycling) • Water management • Health systems and services • Sustainable food consumption/production • Land-Use • Nature-Based Solutions • Public and green spaces • Landscape and Jurisdictional Approaches • Jurisdictional REDD+ Program • Other, please specify	Text field [maximum 2,500 characters]	Select from: • Scoping • Pre-feasibility/impact assessment • Project feasibility • Project structuring • Transaction preparation • Implementation • Post implementation	Select from: • Project not funded and seeking partial funding • Project not funded and seeking full funding • Project partially funded and seeking additional funding • Other, please specify	Select all that apply: • Grants • Loans from commercial banks • Bonds • Loans from International Financial Institutions • Private investment • Public finance- own budget • Public finance- national government • Public-private partnership • Carbon markets	Text field [maximum 5,000 characters]	[Attachment function]

• No relevant projects				• No financing model identified • Other, please specify		

8	9
Total cost of project	Total investment cost needed, if relevant
Numeric field [enter a figure of 0 or greater using no decimal places]	Numeric field [enter a figure of 0 or greater using no decimal places]

[Add row]

Requested content	
Requested content – [theme] (if applicable)	General • This question only appears to disclosers identified as a public authority. • This question provides the opportunity to report any planned climate-related projects for which your jurisdiction seeks to attract funding or technical assistance from public and/or private institutions. These may be projects relating to renewable energy, sustainable transport, building or energy efficiency, waste, water or other climate-related areas. • Project disclosure helps close the information gap on subnational climate finance needs. Data disclosed through this question is used to develop actionable insights and high-level briefings for policymakers, public and private investors, technical assistance facilities, and partner networks. CDP aims, but cannot guarantee, to connect pending projects to technical assistance and funding opportunities. For additional information on how CDP uses project data, please refer to our project disclosure guides in English, Portuguese, French, Spanish, and Bahasa, which are available at CDP's Matchmaker webpage. Project area (column 1) • Your selection in this column will determine whether the subsequent columns are presented. If your jurisdiction is not currently seeking financing on any relevant projects, please select "No relevant projects". If this option is selected, the subsequent columns 2 – 9 will not be presented. • Use the drop-down options to select the project area that is closest to the project that your jurisdiction is seeking financing for. If the project also relates to other project areas, you can provide this information in column 6 "Project description, and URL link, if applicable". Project title (column 2) • This column is not presented if "No relevant projects" is selected in column 1 "Project area". • Please provide a short title or name for the project. You can provide further qualitative information on the project in column 6 "Project description and URL link, if applicable". Stage of project development (column 3) • This column is not presented if "No relevant projects" is selected in column 1 "Project area". • Please indicate the current status of the project by selecting from the listed options. Status of financing (column 4)

	• This column is not presented if "No relevant projects" is selected in column 1 "Project area".
	• Please indicate the status of the project's financing by selecting from the listed options:
	  o Project not funded and seeking partial funding: Select this option if the project is not funded and your jurisdiction is seeking funding for only a portion of the project. If the project falls into this category, please specify the estimated total cost of the project in column 8 "Total cost of the project" and the amount of partial funding required in column 9 "Total investment cost needed, if relevant."
	  o Project not funded and seeking full funding: Select this option if the project is not funded and seeking financing for the whole project. If your project is in this status, please indicate the total cost of the project and the amount that is still needed in the relevant columns. If appropriate, please put the same value in both columns.
	  o Project partially funded and seeking additional funding: Select this option if the project is partially funded, but your jurisdiction is still seeking additional funding. If your project is in the status, please indicate in the description how much funding has already been received and indicate how much additional finance is being sought in the investment cost needed column.
	  o Other, please specify: Please provide additional details of the status of financing of the project.
	
	Identified financing model (column 5)
	• This column is not presented if 'No relevant projects' is selected in column 1 "Project area".
	• Indicate if your jurisdiction has identified a financing model(s) for your project. The financing model provides information about possible financing sources and/or financial instruments.
	
	Project description, and URL link, if applicable (column 6)
	• This column is not presented if "No relevant projects" is selected in column 1 "Project area".
	• Use this text box to provide a comprehensive description of the project, including details about its scope, objectives, anticipated climate change outcomes, potential co-benefits, and environmental and social impacts. If known, please provide a quantification of mitigation/adaptation benefits, information about any technical studies available for the projects, names of partners and technical assistance facilities involved, the percentage of already secured funding for the project. If available, please report the percentage of finance secured from each of the financing models selected in column 5 "Identified financing model".
	
	Attach project proposal, if applicable (column 7)
	• This column is not presented if "No relevant projects" is selected in column 1 "Project area".
	• If available, attach your written project proposal using the attachment function.
	
	Total cost of project (column 8)
	• This column is not presented if "No relevant projects" is selected in column 1 "Project area".
	Give an estimate of the total cost of the project, including any financing which has already been secured. This figure should be in the same currency that you selected in 1.2 and disclosed throughout your response.
	
	Total investment cost needed (if relevant) (column 9)
	• This column is not presented if "No relevant projects" is selected in column 1 "Project area".
	• Indicate the total amount of money (full, partial, or additional funds) your jurisdiction is seeking for the project. If the project is seeking full funding, this amount should be equal to the total estimated cost of the project specified in column 8 "Total of the project". This figure should be in the same currency that you selected in 1.2 and disclosed throughout your response.

Explanation of terms	• Nature-based Solutions: actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits. (UNEA-5) • Landscape and jurisdictional approach: a muti-stakeholder collaborative strategy to advance shared sustainability goals and build resilience at landscape scale. A jurisdictional approach is a landscape approach defined by administrative boundaries and with high level of government involvement.
Additional information	CDP Matchmaker – CDP Matchmaker advances the implementation of climate resilient, sustainable and equitable infrastructure through project data disclosure and stakeholder consultation. CDP aims, but cannot guarantee, to connect pending projects to technical assistance and funding opportunities where possible. CDP also leverages project data to develop programming that seeks to accelerate equitable climate action through partnerships between local governments, communities and companies. While US$ trillions will be required annually by 2050 for infrastructure to address climate risks, local governments continue to face significant barriers in accessing necessary capital. Project disclosure through this question helps address the widespread gap in standardized data on urban infrastructure needs and opportunities while better positioning local governments for robust technical assistance, funding and financing opportunities from CDP's partners. Each year cities, states and regions, and public authorities report projects through their annual disclosure to this question. In 2023, 2,500+ projects worth US$162 billion were disclosed by 700+ cities globally. This represents a 63% increase since 2021, demonstrating that the opportunity to invest in local governments has never been greater. To accelerate the implementation of these climate infrastructure projects, CDP disseminates actionable project data and convenes key stakeholders needed to prepare, fund, finance and implement climate infrastructure. These stakeholders include All requesters and other investors, public funding and policymakers, the private sector, and project preparation facilities (PPFs). For more information about how to report climate infrastructure projects through CDP-ICLEI Track and the benefits of project disclosure, we invite you to read our two-page guidance resource, available in English, Portuguese, French, Bahasa, and Spanish. For your reference, below is the project disclosure checklist to guide your response: • Projects should be at the planning, design or partial implementation phase; • Projects should be seeking funding or financing; • Projects should fall under project sector categories in the questionnaire; • Previously reported projects should be updated annually; • Examples of projects that can be disclosed include EV expansion, solar PV, building retrofits, green infrastructure and others. Organizations must fill in as much data as possible for each column to be best positioned for further support by partners. • You can learn more about CDP's work on sustainable infrastructure finance on this webpage. Feel free to contact us at ClimateProjects@cdp.net, should you need additional information.

Tags		
Authority type	Public Authorities only	
Environmental Issue (Theme)	Question level	CC

Questionnaire sector	Question level	All (except FS)

(7.57) Describe your organization's efforts to reduce methane emissions from your activities.

Question details	
Change from last year	• No change
Rationale	• Methane emissions represent significant direct emissions from oil and gas activities. Disclosing relevant information relating to your organization's efforts to reduce methane emissions from your oil and gas activities can reduce the financial and reputational risk facing investors. Investors and other data users are interested in learning about methane reduction projects and collaborative initiatives.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	

	General
	• If methane emissions are relevant to your organization's operations, then provide a company specific description of your organizations efforts to reduce methane emissions from your oil and gas activities, including:
	  ○ Methane reduction projects; and
	  ○ Collaborative initiatives to reduce methane emissions through mandatory and voluntary programs.
	• You will be able to provide information on your specific maintenance activities e.g. leak detection and repair, in question 7.60.
	• If methane emissions are not relevant to your operations, provide a company-specific description of why not.
	
	Methane reduction projects
	• Describe examples of the efforts your organization is taking to reduce its methane emissions, referring to any relevant emissions reduction activities you may have reported elsewhere in your CDP response.
	
	Collaborative initiatives to reduce methane emissions through mandatory and voluntary reduction programs
	• Please name any methane emissions reduction program(s) your organization participates in, and describe any focus areas or objectives, as well as any outcomes and achievements of your organization's participation.
	• Please also describe how the program relates to your organization's overall strategy for managing methane. Examples of voluntary methane emissions reduction programs include:
	  ○ The Climate & Clean Air Coalition (CCAC)
	  ○ The Global Methane Initiative (GMI)
	  ○ US EPA Natural Gas STAR Program
	  ○ US EPA Coalbed Methane Outreach Program
	  ○ Our Nation's Energy (One) Future Coalition
	• Please indicate where more information on your participation is available for interested parties to access.

Tags	
Authority type	All requesters

Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	O&G

Leak detection and repair

(7.58) Describe your organization's efforts to reduce methane emissions from your activities.

Question details	
Question dependencies	• This question only appears if you select "Electricity generation", "Gas storage, transmission and distribution", "Coal mining" and/or "Gas extraction and production" in response to 1.16.
Change from last year	• No change
Rationale	Disclosing relevant information on your organization's efforts to reduce methane emissions relating to your activities can reduce the financial and reputational risk facing companies and investors. Investors and other data users are interested in learning about methane reduction targets, projects and collaborative initiatives that companies have in place.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General
	
	• This question requests information on how your organization approaches methane leak detection and repair (LDAR), or other methane leak detection methods, in order to gauge how effectively methane emissions are being reduced.
	• If methane emissions are relevant to your organization's operations, then describe using examples your organization's efforts to reduce methane emissions from your activities, including:
	  ○ Methane reduction targets;
	  ○ Methane reduction projects; and
	  ○ Collaborative initiatives to reduce methane emissions through mandatory and voluntary programs
	• Include a case study for at least one of the efforts you have undertaken.
	• If methane emissions are not relevant to your operations, provide a company-specific description of why not.
	
	Methane reduction targets
	
	• Outline if you have a methane-specific target that was active (ongoing or reached completion in the reporting year).
	• If you have reported a separate methane-specific emissions reduction target in 7.53.1 and 7.53.2, specify the target reference number(s) (from column 1 of 7.53.1 and 7.53.2) here.
	• If methane emissions were incorporated into targets reported in 7.53.1 and 7.53.2, specify the relevant target reference number (from column 1 of 7.53.1 and 7.53.2) and provide details of the methane reduction component of that target, including the

	percentage that methane emissions comprise in the total emissions covered by the target in the base year (column 13 of 7.53.1 and/or column 14 in 7.53.2).
	• If you have reported a methane-specific absolute and/or intensity target in 7.54.2, specify the target reference number(s) (from column 1 of 7.54.2) here.
	
	Methane reduction projects
	
	• Describe current and planned methane reduction projects, including efforts to implement methane leak detection and repair (LDAR).
	• Describe the frequency, the methodology and, scope of your LDAR programs or other methane leak detection methods you employ.
	  ○ Frequency refers to how often a company observes its assets for leaks (e.g. monthly, quarterly, annually)
	  ○ Methodology is the process that the company uses to detect methane leaks, for example:
	  ▪ Optimal gas imaging (OGI) cameras
	  ▪ Handheld "sniffer" gas detectors
	  ▪ Infrared thermal imaging (FLIR) camera
	  ▪ Audio, Visual, Olfactory (AVO) inspections
	  ▪ US EPA's Method 21
	  ▪ Colorado Regulation 7
	  ▪ Canadian Council of Ministers of Environment (CCME) Environmental Code of Practice for Measurement and Control of Fugitive VOC Emissions from Equipment Leaks (Oct 1993)
	  ▪ Canadian Association of Petroleum Producers (CAPP) Best Management Practice: Management of Fugitive Emissions at Upstream Oil and Gas Facilities
	  ▪ EU Commission IPPC Directive (2008/1/EC) and Industrial Emissions Directive (IED, 2010/75/EU)
	  ○ Scope is the percentage of the company's assets that are inspected under an LDAR or other methane leak detection program
	
	Methane emissions reduction program(s)
	
	• Name the methane emissions reduction program(s) your organization participates in, and describe any focus areas or objectives, as well as any outcomes and achievements of your organization's participation.
	• Describe how the program relates to your organization's overall strategy for managing methane in the value chain. Examples include: The Global Methane Initiative (GMI), ONE Future and the US EPA Natural Gas STAR Program.
	• Finally, please indicate where more information on your participation is available for interested parties to access.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	EU

(7.59) Describe your organization's efforts to reduce methane emissions from your activities.

Question details	
Change from last year	• No change
Rationale	• Disclosing relevant information relating to your organization's efforts to reduce methane emissions from your coal mining activities can reduce the financial and reputational risk facing investors. Significant uncertainty exists in quantifying coal organization's contributions to methane emissions and their efforts to reduce methane emissions, with investors and data users interested in learning about methane reduction projects and collaborative initiatives.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General
	
	• If methane emissions are relevant to your organization's operations, then provide a company-specific description of your efforts to reduce methane emissions from your coal mining activities, including:
	  ○ Methane reduction projects; and
	  ○ Collaborative initiatives to reduce methane emissions through mandatory and voluntary programs.
	• Include a case study for at least one of the efforts you have undertaken.
	• You will be able to provide information on your specific maintenance activities e.g. leak detection and repair, in question7.60.
	• If methane emissions are not relevant to your operations, please give a company-specific description of why not.
	
	Methane reduction projects
	
	• Describe examples of the efforts your organization is taking to reduce its methane emissions, referring to any relevant emissions reduction activities you may have reported elsewhere in your CDP response.
	
	Collaborative initiatives to reduce methane emissions through mandatory and voluntary reduction programs
	
	• Name any methane emissions reduction program(s) your organization participates in, and describe any focus areas or objectives, as well as any outcomes and achievements of your organization's participation.
	• Also describe how the program relates to your organization's overall strategy for managing methane. Examples of voluntary methane emissions reduction programs include the US EPA Coalbed Methane Outreach Program
	• Indicate where more information on your participation is available for interested parties to access.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC

Questionnaire sector	Question level	CO

(7.60) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from coal mining activities?

Question details	
Change from last year	• No change
Rationale	• Investors are interested in how organizations approach methane leak detection and repair (LDAR), or other methane leak detection methods, in order to gauge how effectively methane emissions are being reduced.
Response options	Select one of the following options: • Yes • No, we do not have a program in place • No, this is not relevant to our operations

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CO

(7.60.1) Describe the protocol through which methane leak detection and repair or other methane leak detection methods are conducted for your coal mining activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

Question details	
Question dependencies	• This question only appears if you select "Yes" in response to 7.60.
Change from last year	• No change
Rationale	Investors are interested in how organizations approach methane leak detection and repair (LDAR), or other methane leak detection methods, in order to gauge how effectively methane emissions are being reduced. This question provides information to data users with further information on the methods used to detect methane leaks.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General • Describe, providing a company-specific description and using examples, the frequency, the methodology, and the scope of your LDAR programs or other methane leak detection methods you employ:

	○ Frequency refers to how often a company observes its assets for leaks (e.g. monthly, quarterly, annually). ○ Methodology is the process that the company uses to detect methane leaks, for example; ▪ Optimal gas imaging (OGI) cameras ▪ Handheld "sniffer" gas detectors ▪ Infrared thermal imaging (FLIR0 camera) ▪ Drone-based monitors ▪ Predictive analytics ▪ Audio, Visual, Olfactory (AVO) inspections ▪ US EPA's Method 21 ▪ Colorado Regulation 7 ▪ Canadian Council of Ministers of Environment (CCME) Environmental Code of Practice for Measurement and Control of Fugitive VOC Emissions from Equipment Leaks (Oct 1993) ○ Scope is the percentage of the company's assets that are inspected under an LDAR or other methane leak detection program.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CO

(7.60.2) Explain why not and whether you plan to conduct methane leak detection and repair or adopt other methods to find and fix fugitive methane emissions from your coal mining activities.

Question details	
Question dependencies	• This question only appears if you select "No, we do not have a program in place" or "No, this is not relevant to our operations" in response to 7.60.
Change from last year	• No change
Rationale	• For many reasons, organizations with coal production activities may not have a program in place to reduce methane emissions using LDAR. This question is developed to provide investors with information on why organizations with coal activities do not have an LDAR program in place.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General • If methane emissions are relevant to your organization's operations, give a company-specific description why you do not conduct LDAR or other methods to fix and find methane emissions. • Explain whether you plan to implement LDAR or other methods to fix and find methane emissions. • If you are planning to implement LDAR or other methods to find and fix methane emissions, then describe these plans and provide implementation timelines.

	• If LDAR or other methods of methane leak detection are not relevant to your organization's operations, give a company-specific description why not.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CO

(7.61) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

Question details	
Change from last year	• No change
Rationale	Investors are interested to understand how companies approach methane leak detection and repair (LDAR) or other methane leak detection methods, in order to gauge how effectively methane emissions are being reduced.
Response options	Select one of the following options: • Yes • No, we do not have a program in place • No, this is not relevant to our operations

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.61.1) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

Question details	
Question dependencies	• This question only appears if you select "Yes" in response to 7.61.
Change from last year	• No change
Rationale	Investors are interested to understand how companies approach methane leak detection and repair (LDAR) or other methane leak detection methods, in order to gauge how effectively methane emissions are being reduced.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General
	
	• Please describe, providing a company specific description and using examples, the frequency, the methodology, and the scope of your LDAR programs or other methane leak detection methods you employ:
	  o Frequency refers to how often a company observes its assets for leaks (e.g. monthly, quarterly, annually).
	  o Methodology is the process that the company uses to detect methane leaks, for example:
	  • Optimal gas imaging (OGI) cameras
	  • Handheld "sniffer" gas detectors
	  • Infrared thermal imaging (FLIR) camera
	  • Drone-based monitors
	  • Predictive analytics
	  • Audio, Visual, Olfactory (AVO) inspections
	  • US EPA's Method 21
	  • Colorado Regulation 7
	  • Canadian Council of Ministers of Environment (CCME) Environmental Code of Practice for Measurement and Control of Fugitive VOC Emissions from Equipment Leaks (Oct 1993)
	  • Canadian Association of Petroleum Producers (CAPP) Best Management Practice:
	  • Management of Fugitive Emissions at Upstream Oil and Gas Facilities
	  • EU Commission IPPC Directive (2008/1/EC) and Industrial Emissions Directive (IED, 2010/75/EU)
	  o Scope is the percentage of the company's assets that are inspected under an LDAR or other methane leak detection program.
	• If your organization can, then please explain:
	  o What is the incidence rate of leaks?
	  o What are the main causes of leaks?
	  o How quickly are the leaks fixed?
	• For more information and recommendations for oil and gas operators on how they can improve the state of methane disclosure please see the Environmental Defense Fund's report Rising Risk: Improving Methane Disclosure in the Oil and Gas Industry, and the follow-up report Disclosure Divide.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.61.2) Explain why you do not conduct LDAR or use other methods to find and fix fugitive methane emissions, and whether you have a plan to do so from your oil and gas production activities.

Question details	
Question dependencies	• This question only appears if you select "No, we do not have a program in place" or "No, this is not relevant to our operations" in response to 7.61.
Change from last year	• No change
Rationale	It may be the case that an organization with oil and gas production activities does not have a program in place to reduce methane emissions using LDAR. This question is developed to provide investors with information on why organizations with oil and gas activities do not have an LDAR program in place.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General • If methane emissions are relevant to your organization's operations, give a company-specific description why you do not conduct LDAR or other methods to fix and find methane emissions. • Explain whether you plan to implement LDAR or other methods to fix and find methane emissions. • If you are planning to implement LDAR or other methods to find and fix methane emissions, then describe these plans and provide implementation timelines. • If LDAR or other methods of methane leak detection are not relevant to your organization's operations, give a company-specific description why not.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

Flaring reduction efforts (OG/CO only)

(7.62) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

Question details	
Change from last year	• No change
Rationale	Flaring of gas contributes to climate change and impacts the environment through emissions of CO_2 and other pollutants while wasting a valuable energy resource, hence investors are interested in learning about organization's efforts to reduce flaring.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General
	• Flaring can occur in the oil and gas industry for many reasons, ranging from initial start-up testing of a facility to unplanned equipment malfunctions.
	• Flaring includes emissions of CO_2, CH4, and N2O from elevated flares, ground flares, emergency flares, well-testing and well work-over.
	• If flaring of natural gas is relevant to your organization's operations, please describe, using company-specific examples, any efforts to reduce flaring, including:
	  ○ Flaring reduction targets;
	  ○ Flaring reduction projects; and
	  ○ Involvement in voluntary programs, for example the World Bank's Global Gas Flaring Reduction Partnership (GGFR) and "Zero Routine Flaring by 2030" initiative.
	• If flaring is not relevant to your operations, please explain why it is not, including examples and timelines.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	OG

(7.63) If flaring is relevant to your coal mining operations, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

Question details	
Change from last year	• No change
Rationale	Flaring of gas contributes to climate change and impacts the environment through emissions of CO_2 and other pollutants while wasting a valuable energy resource, hence investors are interested in learning about organizations' efforts to reduce flaring.
Response options	• This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal , formatting is not retained.

Requested content	General
	• Flaring can occur in the coal industry for many reasons, ranging from initial start-up testing of a facility to unplanned equipment malfunctions.
	• Flaring includes emissions of CO_2, CH_4, and N_2O from elevated flares, ground flares, emergency flares, well-testing and well work-over.
	• If flaring of methane/coal bed methane is relevant to your organization's operations, please describe, using company-specific examples, efforts to reduce flaring, including:
	  ○ Flaring reduction targets;
	  ○ Flaring reduction projects; and
	  ○ Involvement in voluntary programs.
	• If flaring is not relevant to your operations, please explain why it is not, including examples and timelines.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CO

Best available Techniques

(7.64) Disclose your organization's best available techniques as a percentage of Portland cement clinker production capacity.

Question details	
Question dependencies	• This question only appears if you select 'Clinker Production' in 1.12
Change from last year	• No change
Rationale	The purpose of this question is to achieve a reasonable indication of the level of adoption of Best Available Techniques (BAT) in the sector. CDP recognizes that this should not be taken as a proxy for overall efficiency and productivity in an organization. Nonetheless, this information is useful in understanding the general adoption status of BAT in the organization and across the sector.
Response options	

1	2
Technique	Total production capacity coverage (%)
4+ cyclone preheating	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]
Pre-calciner	

[Fixed row]

Requested content	General • Complete this table for each of the techniques in column 1. • These technologies apply to clinker production from cement kilns. Total production capacity coverage (%) (column 2) • Using this numerical field, enter the percentage of your total kiln capacity that utilizes the technique listed in column 1, using a value between 0-100, and no more than 2 decimal places. • All kiln capacity should be recognized, including kilns for which these technologies cannot be installed. For example, if your organization owns 5 Mt of wet kiln clinker capacity and 5 Mt of dry kiln clinker capacity, of which 50% has cyclone preheating of 4 or more stages, then you should enter 25 in the first row.

	• These two technologies are not mutually exclusive, i.e. the sum of both figures provided can be over 100.
Explanation of terms	• Best available technique (BAT): Best available techniques (BAT) refer to the available techniques which are the best for preventing or minimizing emissions and impacts on the environment. BAT include both the technology used, and the way your installation is designed, built, maintained, operated and decommissioned.
Additional information	Further information on BAT for the cement sector can be found in EIPPCB's BAT Reference Document for the Production of Cement, Lime and Magnesium Oxide and from the European Cement Research Academy for Cement Sustainability Initiative.

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	CE

(7.65) Disclose your organization's best available techniques as a percentage of total plant capacity.

Question details	
Change from last year	• No change
Rationale	• The purpose of this question is to achieve a reasonable indication of the level of adoption of Best Available Techniques (BAT) in the sector. CDP recognizes that this should not be taken as a proxy for overall efficiency and productivity in an organization. Furthermore, the adoption of some technologies is dependent on various site or market conditions, which is why we provide the opportunity for explanation. Nonetheless, this information is useful in understanding the general landscape and adoption status of BAT in the organization and across the sector, and the reasons behind their limitations.
Response options	

1	2	3	4
Technique/Process	% of total plant capacity	Primary reason for not having technique	Comment
Coke oven: Coke dry quenching	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Select from: • Other priorities are being met first • Payback period considered too long • Improvement potential considered insignificant • Considered infeasible due to site-specific conditions • Other, please specify	Text field [maximum 2,400 characters]
Coke oven: Coal moisture control process			
Coke oven: Programmed heating			
Sinter plant: Sinter cooler exhaust gas waste heat recovery			
Sinter plant: Sinter strand waste-gas recycling			

Sinter plant: Use of waste fuels in sinter mixture			
Blast furnace: Injection of pulverized coal, biomass or wastes			
Blast furnace: Top recovery turbine			
Blast furnace: Recuperator (air preheating) hot-blast stoves			
Blast furnace: Computer aided control system for hot-blast stoves			
Blast furnace: Slag granulation for cement industry			
Basic oxygen furnace: BOF gas and sensible heat recovery			
Basic oxygen furnace: Vessel bottom stirring			
Basic oxygen furnace: Programmed and preheated ladles			
Electric arc furnace: Scrap preheating			
Electric arc furnace: Oxy-fuel burners			
Electric arc furnace: Oxygen blowing for liquid steel oxidation or post combustion			
Electric arc furnace: Integrated, real-time process control and monitoring systems			
Casting: Absence of soaking pits and primary rolling of ingots			
Casting: Near net shape casting, e.g. thin slab, thin strip, etc.			
Hot rolling mill: Hot charging			
Hot rolling mill: Recuperative/regenerative burners			
Hot rolling mill: Walking beam furnace			
Hot rolling mill: Variable speed drives on combustion air fans of reheat furnace			
Integrated steel mill: Combined heat and power/cogeneration plant			
Integrated steel mill: Energy monitoring and management system			
Other			

[Fixed row]

Requested content	General • Complete this table for each of the techniques/process in column 1. • Enter information for the reporting year. • If “Other” is selected, please elaborate in column 4. % of total plant capacity (column 2) • Using this numerical field enter the percentage of your total plant capacity that utilizes the technique/process listed in column 1, using a value between 0-100, and no more than 2 decimal places.

	Primary reason for not having techniques (column 3) • From the drop-downs presented, select the primary reason for not having the technique/process listed in column 1. • If you select "Other, please specify," provide a label for the Primary reason for not having technique. • For techniques that you use, select "Other, please specify" and enter "Not applicable" Comment (column 4) (optional) • Using this text field, you may expand on the primary reason selected in column 3, or list further reasons. • You may wish to outline whether you have plans to implement the process/technique listed in column 1.
Explanation of terms	• Best available technique (BAT): Best available techniques (BAT) refer to the available techniques which are the best for preventing or minimizing emissions and impacts on the environment. BAT include both the technology used, and the way your installation is designed, built, maintained, operated and decommissioned.
Additional information	Further information on BAT for steel sector can be found in EIPPCB's "BAT Reference Document for Iron and Steel Production" and EPA's white paper on "Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from the Iron and Steel Industry"

Tags		
Authority type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire sector	Question level	ST

CCS/U (OG only)

(7.66) Is your organization involved in the sequestration of CO_2?

Question details	
Question dependencies	This question only appears if you select "Carbon capture and storage/utilization" in response to 1.19.
Change from last year	No change
Rationale	Carbon capture and storage/utilization (CCS/U) is often presented as one of the key technologies in tackling climate change, to the point where in the majority of climate models, CCS/U is critical to meeting decarbonization goals set by the Paris Agreement to limit global warming to well below 2 degrees by 2100.
Response options	Select one of the following options: • Yes

	• No

Requested content	General • Select Yes if your organization is involved in sequestration of CO_2.
Explanation of terms	• Sequestration of CO_2: The fixation of atmospheric carbon dioxide in a carbon sink through biological or physical processes.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	OG

(7.66.1) Provide, in metric tons CO_2, gross masses of CO_2 transferred in and out of the reporting organization (as defined by the consolidation basis).

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.66.
Change from last year	No change
Rationale	CCS/U is beginning to be demonstrated across the world on a variety of sources and scales. Investors and data users are interested in CO_2 transfers in and out of the organization to make useful comparisons of CCS/U projects.
Ambition	Companies are transparent about CO_2 transfers in and out of their reporting boundary.
Response options	Please complete the following table

0	1	2
Transfer direction	CO_2 transferred in the reporting year (metric tons CO_2)	Types of CO2 transfer
CO_2 transferred in	Numerical field [enter a number from 0-999,999 using a maximum of 2 decimal places]	Select all that apply: • Transfer from a flue gas system • Transfer from an industrial process • Purchase from a naturally-occurring underground source • Transfer from another company under a storage agreement • Other, please specify
CO_2 transferred out	Numerical field [enter a number from 0-999,999 using a maximum of 2 decimal places]	Select all that apply: • Sold to the market for use in commercial products

		• Sold to the market as a feedstock to other chemical or industrial processes • Transferred to another company for acid gas injection (CO2 and H2S co-injected into a production reservoir) • Transferred to another company for enhanced oil recovery (EOR) operations • Transferred to another company for enhanced shale gas recovery (ESGR) operations • Transferred to another company for other enhanced gas recovery (EGR) operations • Transferred to another company for enhanced coal bed methane (ECBM) operations • Other, please specify

[Fixed row]

Requested content	CO_2 transferred in the reporting year (column 2)
	• Enter in metric tons the gross total CO2 transferred into (row 1) or out of (row 2) your organizational boundary (as defined by your answer to 6.1) in the reporting year.
	
	Type(s) of CO2 transfer (column 3)
	• Select the reason(s) for the transfer of CO2 into (row 1) or out of (row 2) your organizational boundary from the list of transfer types provided, or use "Other, please specify".
	• Examples of transfers of CO_2 into an organization (row 1)
	  o Transfer from a flue gas stream – CO_2 is transferred into the organizational boundary, post-combustion, from the exhaust/stack/flue gas stream of a combustion process (e.g., power station).
	  o Transfer from an industrial process – CO_2 is transferred into the organizational boundary, often pre-combustion, from an industrial process such as ammonia manufacturing, fermentation, hydrogen production, cement manufacturing, steel manufacturing etc.
	  o Purchase from a naturally-occurring underground source: CO_2 is purchased by the organization from naturally occurring underground CO_2 deposits.
	  o Transfer from another company under a storage agreement: CO_2 is transferred into the organizational boundary from another company for the purposes of sequestration/injection and long-term storage.
	• Examples of transfers of CO_2 out of an organization (row 2)
	  o Sold to the market for use in commercial products: CO_2 is sold for use in products such as carbonated beverages, dry ice, fire extinguisher agents, refrigerants, laboratory gas, grain infestation treatment, solvents etc.
	  o Sold to the market as a feedstock to other chemical or industrial processes: CO_2 is sold for use as a feedstock to processes such as urea fertilizer production, methanol production, crop cultivation in greenhouses etc.
	  o Transferred to another company for acid gas injection: CO2 is transferred out of the organizational boundary to be co-injected with H2S into a production reservoir.
	  o Transferred to another company for enhanced oil recovery (EOR) operations: CO_2 is transferred out of the organizational boundary <u>to a third party</u> for the purpose of

	EOR via CO_2 injection. Do not select this option for CO_2 used for your organization's own EOR operations. o Transferred to another company for enhanced shale gas recovery (ESGR) operations: CO_2 is transferred out of the organizational boundary to a third party for the purpose of recovering natural gas trapped in shale formations. Do not select this option for CO_2 used for your organization's own ESGR operations. o Transferred to another company for other enhanced gas recovery (EGR) operations: CO_2 is transferred out of the organizational boundary to a third party for the purpose of EOR via CO_2 injection. Do not select this option for CO_2 used for your organization's own EOR operations. o Transferred to another company for enhanced coal bed methane (ECBM) operations: CO_2 is transferred out of the organizational boundary to a third party for the purpose of ECBM via CO_2 injection. Do not select this option for CO_2 used for your organization's own ECBM operations.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	OG

(7.66.2) Provide gross masses of CO_2 injected and stored for the purposes of CCS during the reporting year according to the injection and storage pathway.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.66.
Change from last year	No change
Rationale	There is an increasing investor recognition that CCS/U is one of the very few ways of reducing emissions in energy-intensive industries. Understanding the quantity of CO_2 injected by pathway and the expected percentage of this that is intended for long term storage provides investors with insight into the emission reduction potential of organizations CCS/U projects.
Ambition	Where CCS is used, storage is long-term, monitored, and with minimal leakage.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3	4
Injection and storage pathway	Injected CO_2 in the reporting year (metric tons CO_2)	Percentage of injected CO_2 intended for long-term (>10,000 year) storage	CO2 leakage in the reporting year during injection (metric tons CO2)
Select from: • Acid gas injection (CO_2 and H_2S co-injected into a production reservoir)	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-100 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 2 decimal places]

• CO_2 used for enhanced oil recovery (EOR) • CO2 used for enhanced shale gas recovery (ESGR) • CO2 used for other enhanced gas recovery (EGR) • CO_2 used for enhanced coal bed methane (ECBM) operations • CO_2 injected into saline formations for long-term storage • CO2 injected into depleted oil and gas reservoirs for long-term storage • CO2 injected into other deep geological formation for long-term storage • CO2 injected into basalts for long-term storage • CO2 injected for storage through mineral carbonation • Other, please specify			

5	6	7	8
Year in which injection began	Cumulative CO_2 injected and stored (metric tons CO_2)	Ongoing leakage (average estimated % of stored CO2 per year)	Describe your process for monitoring leakage and any long-term storage of the CO2
Numerical field (Enter a year e.g. 1999. The value must be in the range 1900-2025)	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 2 decimal places]	Numerical field [enter a number from 0-100 using a maximum of 2 decimal places]	Text field [max 2,500 characters]

[Add Row]

Requested content	Injection and storage pathway (column 1) • If you select "Other, please specify," provide a label for the injection and storage pathway. • If your organization is involved in multiple injection and storage pathways, add a row to provide information for each pathway. Injected CO2 in the reporting year (metric tons CO2) (column 2) • Enter in metric tons the amount of CO_2 that was injected via the selected injection and storage pathway in the reporting year. Percentage of injected CO2 intended for long-term (>10,000 year) storage (column 3) • Enter the percentage of CO_2 injected in the reporting year that was intended for long-term/permanent storage of at least 10,000 years. CO2 leakage in the reporting year during injection (metric tons CO2) (column 4)

	• Enter in metric tons the amount of CO_2 leakage that occurred during injection in the reporting year. See Explanation of Terms for more information.
	
	Year in which injection began (column 5)
	• Enter the year in which the injection of CO_2 began.
	
	Cumulative CO2 injected and stored (metric tons CO2) (column 6)
	• Provide the total figure of CO_2 injected and stored over the lifetime of the project to date, since the year in which injection began.
	
	Ongoing leakage (average estimated % of stored CO2 per year) (column 7)
	• Estimate the ongoing leakage of CO_2 over the lifetime of the storage.
	• This figure should be the average percent of stored CO_2 estimated to leak per year for the lifetime of the storage.
	
	Describe your process for monitoring leakage and any long-term storage of the CO2 (column 8)
	• Describe your process for:
	  o detecting, monitoring, and quantifying CO_2 leakage during injection; and
	  o the ongoing monitoring of stored CO_2 for the purposes of detecting and quantifying CO_2 leakage.
	• Include the methods used and the intervals at which the monitoring occurs.

Explanation of terms	• CO_2 injection: Injecting CO_2 into carefully selected and managed deep geological formations (e.g. saline formations, depleted oil and gas reservoirs, enhanced oil recovery operations or enhanced coal-bed methane deposits), some of which previously contained hydrocarbons for millions of years. • CO_2 leakage (CCS): also referred to as carbon leakage or seepage, refers to CO_2 losses to the atmosphere at storage sites due to infrastructure or storage malfunctions.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	OG

(7.66.3) Provide clarification on any other relevant information pertaining to your activities related to transfer and sequestration of CO2.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.66.
Change from last year	No change
Rationale	Investors are looking to invest in a range of companies that have developed and utilized innovative and commercially viable CCS/U technologies. This question is designed to capture additional relevant information relating to the transfer and sequestration of CO_2. It requests information on the consolidation basis used to report transfers and sequestration of CO_2 emissions, who owns the transferred emissions and the risk management processes in place.
Response options	This is an open text question with a character limit of 5000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General Consolidation basis • Indicate the consolidation basis (financial control, operational control, equity share) used to report transfers and sequestration of CO_2 emissions. • Provide clarification for cases in which different consolidation bases have been used (e.g. for a given activity, capture, injection or storage pathway). • Provide clarification on whether any oil reservoirs and/or sequestration system (geological or oceanic) have been included within the organizational boundary of the reporting organization. • Provide details, including degrees to which reservoirs are shared with other entities. Ownership of transferred emissions • Explain who (e.g. the reporting organization) owns the transferred emissions and what potential liabilities are attached. • In the case of sequestered emissions, please clarify whether the reporting organization or one or more third parties owns the sequestered emissions and who has potential liability for them. Risk management • Provide details of risk management performed by the reporting organization and/or third party in relation to its CCS/U activities. • This should cover pre-operational evaluation of the storage (e.g. site characterization), operational monitoring, closure monitoring, remediation for CO_2 leakage, and results of third party verification.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	OG

Land management practices

Section Overview	This section includes questions around both adaptation and mitigation mechanisms adopted by companies to address climate change. This information demonstrates that organizations are committed to using practices that help reducing emissions and improve their resilience. Organizations can report up to 20 practices adopted on their land. Those practices that have brought or are expected to bring the largest benefits should be prioritized.

(7.67) Do you implement agriculture or forest management practices on your own land with a climate change mitigation and/or adaptation benefit?

Question details	
Question dependencies	This question only appears if you select “Own land only” or “Value chain (including own land)” column "Relevance of emissions and/or water-related impacts" for "Production" row of 1.11.
Change from last year	No change
Rationale	This question gathers information on any management practices implemented in your farm or production unit with climate change benefits. This information is important for data users because it demonstrates that your organization is acting on either preventing, reducing, controlling, and/or adapting to the effects of climate change.
Response options	Select one of the following options: • Yes • No • Don’t know

Requested content	General • Select ‘Yes’ if you have implemented/are in the process of implementing actions on your land with direct or indirect climate change benefits. These land management actions may have been adopted for either preventing, reducing, controlling, and/or adapting to effects of climate change. • There is a wide variety of agricultural/forestry management practices that have either direct or indirect climate change mitigation and/or adaptation benefits.
Explanation of terms	• Mitigation: or "climate change mitigation" refers to efforts to reduce or prevent emission of greenhouse gases. • Adaptation: adjustment to climate change current or expected effects so the consequences to the business and environment are alleviated and beneficial opportunities are realized.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.67.1) Specify the agricultural or forest management practice(s) implemented on your own land with climate change mitigation and/or adaptation benefits and provide a corresponding emissions figure, if known.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.67.
Change from last year	No change
Rationale	This question elicits specific and detailed information about the land management practices adopted by your organization. This information provides data users with an indication of how committed you are to mitigating and adapting to the effects of climate change. Demonstrating an understanding of climate-related benefits related to agricultural/forestry practices is best practice in this sector.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

Management practice reference number	Management practice	Description of management practice	Primary climate change-related benefit	Estimated CO2e savings (metric tons CO2e)	Please explain
Select from: MP1 MP2 MP3 MP4 MP5 MP6 MP7 MP8 MP9 MP10 MP11 MP12 MP13 MP14 MP15 MP16 MP17 MP18 MP19 MP20	Select from: • Afforestation • Agroforestry • Biodiversity considerations • Change in the topography or landscapes • Composting • Crop diversity • Contour farming • Crop rotation • Diversifying farmer income • Efficient equipment use • Equipment maintenance and calibration • Enhanced forest regeneration practices • Fertilizer management • Fire control • Governmental or institutional policies and programs • Green harvesting • Integrated pest management • Knowledge sharing	Text field [maximum 2,400 characters]	Select from: • Emission reductions (mitigation) • Increasing resilience to climate change (adaptation) • Increase carbon sink (mitigation) • Reduced demand for fossil fuel (adaptation) • Reduced demand for fertilizers (adaptation) • Reduced demand for pesticides (adaptation) • Other, please specify	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 2 decimal places]	Text field [maximum 2,400 characters]

	• Land use change • Low carbon energy use • Low tillage and residue management • Livestock management • Manure management • Nitrogen-fixing plants as cover crop • Organic farming • Practices to increase wood production and forest productivity • Permanent soil cover (including cover crops) • Pest, disease and weed management practices • Reducing energy use • Reforestation • Restoration • Replacing fossil fuels by renewable energy sources • Restoration of degraded lands and cultivated organic soils • Rice management • Seed variety selection • Selective logging • Selecting species to maximize carbon capture • Species introduction • Timing of farm operations • Waste management • Other, please specify				

[Add Row]

Requested content	General • If your organization undertakes many actions, please prioritize those that have had or/is expected to have the greatest benefit to your business (e.g. in reducing CO_2e emissions, saving costs, increasing productivity). Management practice reference number (column 1) • Select an identifier for each of your management practices. This reference number shall be used to track progress on your specific project in the following years. • You may report up to 20 management practices Management practice (column 2) • Select the option that best describes the management practice adopted by your organization. • If none of the options are applicable to your organization, select 'Other, please specify' and indicate the management practice that you have undertaken. If you need more than 40 characters, please use column 3 (Description of…)

	Description of management practice (column 3) • Provide a brief company-specific description of your practice, including the methods and tools used to implement it • Indicate which parts of your business the management practice is applicable (e.g. company-wide, selected facilities or regions). • Provide an explanation as to why you have chosen this practice and how you expect this to mitigate climate change effects and improve your business resilience • Specify a timeframe for which you expect to receive benefits from the implementation of this practice Primary climate change related benefit (column 4) • Select the primary benefit (or expected benefit) provided by your action • If none of the options are applicable to your organization, select 'Other, please specify' and indicate the primary climate change related benefit you expect to experience Estimated CO2e savings (metric tons CO2e) (column 5) • Provide an estimated CO_2e savings figure associated with the action you selected in column 2 (Management practice). This should reflect the total CO_2e in metric tons that has been saved (or is expected to be saved) due to the specific implemented practice Please explain (column 6) • Specify and provide a description of the methods and tools used to calculate your figure reported in column 5, and indicate any exclusions
Example response	See example below, for guidance purposes only:

Management practice reference number	Management practice	Description of management practice	Primary climate change-related benefit	Estimated CO2e savings (metric tons CO2e)	Please explain
MP1	Permanent soil cover (including cover crops)	We adopted cover crops for all our farms in Argentina, Uruguay and Brazil (85% of our direct operations). We have implemented cover-cropping practices because it reduces soil exposure/erosion, increases soil organic matter content, improves water retention, soil structure and overall soil health. Benefits are already expected after the first year, in our case the coming reporting year.	Emissions reductions (mitigation)	287	We quantified the benefits of reducing our GHG emissions using the Cool Farm Tool and included in the assessment all our farms where we currently use cover crops. Results: 1437 kg CO2e per hectare per year reduction in GHG emissions. As we manage 200 hectares, we expect a total emissions reduction per year of 287 tCO2e.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.68) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?

Question details	
Question dependencies	This question only appears if you select 'Yes...' "" in response to Suppliers in column 2 of 5.11 AND if you select "Value chain (excluding own land)" or "Value chain (including own land)" in response to column "Emissions and/or water-related impacts" for "Production" row of 1.11.
Change from last year	No change
Rationale	This question gathers information on whether you encourage your suppliers to undertake any management practice with climate change benefits. This demonstrates to data users that your organization is acting on either preventing, reducing, controlling, and/or adapting to the effects of climate change in its supply chain. By encouraging your suppliers to adopt such management practices on their land, you promote awareness of sustainable production practices and ultimately contribute to reducing climate-related risks in your supply chain.
Response options	Select one of the following options: • Yes • No

Requested content	General • Select 'Yes' if you have encouraged /are in the process of encouraging your suppliers to adopt actions or management practices with direct or indirect climate change benefits. These may refer to preventing, reducing, controlling and/or adapting to effects of climate change. • There is a wide variety of agricultural/forestry management practices that have either direct or indirect climate change mitigation and/or adaptation benefits.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.68.1) Specify which agricultural or forest management practices with climate change mitigation and/or adaptation benefits you encourage your suppliers to undertake and describe your role in the implementation of each practice

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.68.
Change from last year	No change
Rationale	This question gathers information on which management practice with climate change benefits you encourage your suppliers to undertake and your role on the implementation. This demonstrates to data users that your organization is acting on either preventing, reducing, controlling, and/or adapting to the effects of climate change in its supply chain. By encouraging your suppliers to adopt such management practices on their land, you promote awareness of sustainable production practices and ultimately contribute to reducing climate-related risks in your supply chain.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

Management practice reference number	Management practice	Description of management practice	Your role in the implementation	Explanation of how you encourage implementation	Climate change related benefit	Comment
Select from: • MP1 • MP2 • MP3 • MP4 • MP5 • MP6 • MP7 • MP8 • MP9 • MP10 • MP11 • MP12 • MP13 • MP14 • MP15 • MP16 • MP17 • MP18 • MP19 • MP20	Select from: • Afforestation • Agroforestry • Biodiversity considerations • Change in the topography or landscapes • Composting • Crop diversity • Contour farming • Crop rotation • Diversifying farmer income • Efficient equipment use	Text field [maximum 2,400 characters]	Select all that apply: • Financial • Knowledge sharing • Operational • Procurement • None • Other, please specify	Text field [maximum 2,400 characters]	Select all that apply: • Emissions reductions (mitigation) • Increasing resilience to climate change (adaptation) • Increase carbon sink (mitigation) • Reduced demand for fossil fuel (adaptation) • Reduced demand for fertilizers (adaptation)	Text field [maximum 1,000 characters]

	• Equipment maintenance and calibration • Enhanced forest regeneration practices • Fertilizer management • Fire control • Governmental or institutional policies and programs • Green harvesting • Integrated pest management • Knowledge sharing • Land use change • Low carbon energy use • Low tillage and residue management • Livestock management • Manure management • Nitrogen-fixing plants as cover crop • Organic farming • Practices to increase wood production and forest productivity • Permanent soil cover (including cover crops) • Pest, disease and weed management practices • Reducing energy use; • Reforestation • Restoration • Replacing fossil fuels by				• Reduced demand for pesticides (adaptation) • Other, please specify	

	renewable energy sources • Restoration of degraded lands and cultivated organic soils • Rice management • Seed variety selection • Selective logging • Selecting species to maximize carbon capture • Species introduction • Timing of farm operations • Waste management • Other, please specify					

[Add Row]

Requested content	General • If your organization encourages your suppliers to undertake many actions, prioritize the disclosure of those that have had/are expected to have the greatest benefit to your suppliers (e.g. reducing CO2e emissions, saving costs, increasing productivity). Management practice reference number (column 1) • Select an identifier for each of management practice. This reference number shall be used to track progress on your specific project in the following years. • You may report up to 20 management practices Management practice (column 2) • Select the option that best describes the action or management practice your organization encourages its suppliers to adopt. • If none of the options are applicable to your organization, select 'Other, please specify' and indicate the management practice you encourage suppliers to adopt Description of management practice (column 3) • Provide a brief company-specific description of the action or management practice, including the methods and tools used to implement it • Provide an explanation as to why you have chosen this practice and how you expect this to mitigate climate change effects and/or improve your business resilience • Specify the percentage of total suppliers that you encourage to adopt this action or management practice and explain any exclusions if you do not cover your entire supply chain

	Your role in the implementation (column 4) • Select the option that best describes your role in the implementation of the action or management practice. Select all options that apply • Consider the following definitions: • Financial –you provide financial support to your suppliers • Knowledge sharing – you support knowledge sharing of agricultural/forestry management practices amongst your suppliers • Operational –you have operational control over the production activities that fall outside of your organizational boundary • Procurement –you encourage specific agricultural/forestry management practices through requirements in your procurement relationships • If none of the options are applicable to your organization, select 'Other, please specify' and indicate your organization's role in implementing these practices Explanation of how you encourage implementation (column 5) • Explain how you have encouraged your suppliers to adopt the action or management practice selected in column 2, by including details of your role in the implementation indicated in column 4 and providing company-specific examples. Climate change related benefit (column 6) • Select the climate change mitigation/adaptation benefits that your suppliers have/expect to receive from the implementation of this action or management practice. Select all options that apply • If none of the options are applicable to your organization, select 'Other, please specify' and indicate the appropriate climate change related benefit Comment (column 7) (optional) • You may use this field to specify and provide a description of the methods and tools used to evaluate the climate change benefits associated with the management practices and any further details.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.68.2) Do you collect information from your suppliers about the outcomes of any implemented agricultural/forest management practices you have encouraged?

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.68
Change from last year	No change
Rationale	This demonstrates to data users that your organization is committed to working towards reducing the impacts of climate change by not only encouraging its suppliers to adopt practices with climate change benefits but also by assessing these benefits after the practices are implemented. Data users are interested to know whether your organization assesses the impact of its actions to address climate-related risks.
Response options	Select one of the following options: • Yes • No

Requested content	General • You should select 'Yes' if you collect information on the outcomes of any agricultural/forestry management practices that your suppliers implemented on their land encouraged by you.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.68.3) Why do you not encourage your suppliers to undertake any agricultural/forest management practices with climate change mitigation and/or adaptation benefits

Question details	
Question dependencies	This question only appears if you select "No" in response to 7.68
Change from last year	No change
Rationale	Data users wish to know the main reason why you do not encourage your suppliers to undertake any management practices with climate change benefits and any plans you might have to engage with your suppliers regarding managing practices in the next two years.
Response options	Please complete the following table:

Primary reason	Please explain
Select from: • Lack of internal resources • We plan to introduce a process in the next two years • Not an immediate business priority • Judged to be unimportant • No instruction from management • Other, please specify	Text field [maximum 4,000 characters]

[Fixed row]

Requested content	Primary reason (column 1)
	• Select the option that best describes the primary reason why you indicated that you do not encourage your suppliers to undertake any agricultural/forestry management practices or actions with climate change benefits.
	• If none of the reasons are applicable to your organization, select 'Other, please specify' and indicate the primary reason you do not encourage suppliers in this context
	
	Please explain (column 2)
	• If you selected 'Lack of internal resources', specify the main challenges you experience to performing such engagement
	• If you selected 'We plan to introduce a process in the next two years', describe your plans for engagement, by including:
	  ○ The percentage of suppliers you are planning to cover
	  ○ Which practices you will encourage your suppliers to adopt and why
	  ○ Brief explanation of how the implementation of these practices may benefit your suppliers and consequently your business
	  ○ How you plan to approach and support your suppliers on the implementation of these management practices.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.69) Do you know if any of the management practices implemented on your own land disclosed in 7.67.1 have other impacts besides climate change mitigation/adaptation?

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.67.
Change from last year	No change

Rationale	Organizations are encouraged to move towards a more holistic approach regarding their land management actions. This is important due to the complex interrelationships between climate change, deforestation, and water security issues. An understanding of the implications of your management practices on other environmental aspects demonstrates a mature environmental stewardship approach to investors and other data users.
Response options	Select one of the following options: • Yes • No

Requested content	General • This question refers to any impacts, other than climate benefits, that may be occurring due to your implementation of any of the agricultural/forestry management practices detailed in 7.67.1. For example, these impacts might refer to negative or positive effects on biodiversity, soil and water quality, or crop yield • You should select "Yes" if you have measured the effects of at least one management practice indicated in 7.67.1 on environmental aspects beyond climate. You will be able to provide details on these effects in the following question • Note that the effects you report should be a result of an evaluation carried out by your organization after the implementation of the practice. Select "No" if you have not carried out an evaluation of the effects of any specific management practice.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.69.1) Provide details on those management practices that have other impacts besides climate change mitigation/adaptation and on your management response.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.69.
Change from last year	No change
Rationale	This question gathers data on impacts - other climate-related - of management practices implemented in your land. Organizations are encouraged to move towards a more holistic approach regarding their land management actions. This is important due to the complex interrelationships between climate change, deforestation, and water security issues. An understanding of the implications of your management practices on other environmental aspects demonstrates a mature environmental stewardship approach to investors and other data users.

Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

1	2	3	4	5	6
Management practice reference number	Overall effect	Which of the following has been impacted?	Description of impact	Have you implemented any response to these impacts?	Description of the response
Select from: MP1, MP2…MP20	Select from: • Positive • Negative • Neutral • Mixed	Select all that apply: • Biodiversity • Soil • Water • Yield • Other, please specify	Text field [maximum 2,400 characters]	Select from: • Yes • No	Text field [maximum 2,400 characters]

[Add Row]

Requested content	General • Identify and explain any impacts that occurred because of any agricultural/forestry management practice implemented in your own land, as reported in 7.67.1. You should not report effects that are climate-related, as these are already captured earlier in your disclosure. Provide effects associated with other environmental issues, e.g. on biodiversity, soils, water. Management practice reference number (column 1) • When referring to a specific management practice or action, please make sure you select the same identifier for this management practice as in 7.67.1. For example, if you would like to disclose other effects of "agroforestry" which you already disclosed in terms of climate-related effects, you should select in this column the same identifier that refers to this practice in in 7.67.1. Overall effect (column 2) • This refers to the overall effect of your management practice on other environmental issues. Which of the following has been impacted? (column 3) • Indicate which environmental issues have been affected by your management practice. Select all options that apply. • If none of the reasons are applicable to your organization, select "Other, please specify" and indicate the additional area(s) that have been impacted by your management practices.

	Description of impact (column 4) • Provide a brief description of the methods/tools used to assess the consequences of the implementation of your management practice on other environmental issues • Provide details on each of these impacts/effects, including: o their nature o the parts of your business that have been affected. Description of the response (column 6) • If applicable, describe your response to manage, mitigate, control, or adapt to these impacts/effects. • If you selected "No" in column 5 ("Have you implemented…?"), explain why you have not implemented a response to these impacts.
Example response	See example below, for guidance purposes only:

Management practice reference number	Overall effect	Which of the following has been impacted?	Description of impact	Have you implemented any response(s) to these impacts?	Description of the response(s)
MP1	Positive	Soil; Yield	We adopted cover-cropping practices in 85% of our farms a year ago. It has already had positive impacts in the soil quality, such as reduced soil erosion, increased levels of soil organic matter, improved moisture retention. Also, the crop yield has increased by 15% compared to last year.	No	We have not implemented any response as we did not identify any negative impacts caused by this management practice.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.70) Do you know if any of the management practices mentioned in 7.68.1 that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.68.

Change from last year	No change
Rationale	Organizations are encouraged to adopt, as well as to promote among their suppliers, a holistic approach regarding land management actions. This is important due to the complex interrelationships between climate change, deforestation, and water security issues. Knowledge of the implications of management practices adopted across the whole value chain that impacts other environmental aspects demonstrates a mature environmental stewardship approach to investors and other data users.
Response options	Select one of the following options: • Yes • No

Requested content	General • This question refers to any impacts, other than climate-related benefits, that may be occurring due to your implementation of agricultural/forestry management practices detailed in 7.68.1. For example, these impacts might refer to negative or positive effects on biodiversity, soil and water quality, or crop yield • You should select "Yes" if you have collected data on your supplier's assessment of at least one management practice indicated in 7.68.1 that have impacted environmental aspects beyond climate. You will be able to provide details on these effects in the following question • Note that the effects you report should be a result of an evaluation carried out by your supplier(s) after the implementation of the practice. Select "No" if your supplier(s) have not carried out an evaluation of the effects of any specific management practice.

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

(7.70.1) Provide details of those management practices implemented by your suppliers that have other impacts besides climate change mitigation/adaptation.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.70.
Change from last year	No change
Rationale	This question gathers data on impacts - other climate-related - of management practices implemented by your suppliers. Organizations are encouraged to move towards a more holistic approach regarding their land management actions. This is important due to the complex interrelationships between climate change, deforestation, and water security issues. An understanding of the implications of management practices on other environmental aspects demonstrates a mature environmental stewardship approach to investors and other data users.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

Management practice reference number	Overall effect	Which of the following has been impacted?	Description of impacts	Has any response to these impacts been implemented?	Description of the response (s)
Select from: MP1, MP2…MP20	Select from: • Positive • Negative • Neutral • Mixed	Select all that apply: • Biodiversity • Soil • Water • Yield • Other, please specify	Text field [maximum 2,400 characters]	Select from: • Yes • No	Text field [maximum 2,400 characters]

[Add row]

Requested content	General • Identify and explain any impacts that occurred because of any agricultural/forestry management practice implemented by your suppliers and encouraged by you, as reported in 7.68.1. You should not report effects that are climate-related as these are already captured earlier in your disclosure. Provide effects associated with other environmental issues, e.g. biodiversity, soils, water in this question. Management practice reference number (column 1) • When referring to a specific management practice or action, please make sure you select the same identifier for this management practice as in 7.68.1. For example, if you would like to disclose other effects of "agroforestry" which you already disclosed in terms of climate-related effects, you should select in this column the same identifier that refers to this practice in 7.68.1.

	Overall effect (column 2)
	• This refers to the overall effect of the management practice on other environmental issues.
	
	Which of the following has been impacted? (column 3)
	• Indicate which environmental issues have been affected by the management practice. Select all options that apply
	• If none of the reasons are applicable to your organization, select "Other, please specify" and indicate the additional issue that has been impacted by the implementation of your encouraged management practices
	
	Description of impacts (column 4)
	• Specify the percentage of your total suppliers from which you collected data on the other effects of management practices encouraged by you
	• If known, provide a brief description of the methods/tools your suppliers used to assess the consequences of the implementation of the management practice on other environmental issues
	• Provide details on each of these impacts/effects, including:
	  o their nature
	  o the parts of your supply chain been affected.
	
	Description of the response(s) (column 6)
	• If applicable, describe your supplier's response to manage, mitigate, control or adapt to these other impacts/effects.
	• If you selected "No" in column 5 ("Have any response…?"), explain why your suppliers have not implement a response to these impacts

Tags		
Authority Type	All requesters	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	AC, FB, PF

Life cycle emissions assessment

(7.71) Does your organization assess the life cycle emissions of any of its products or services?

Question details	
Change from last year	No change
Rationale	Stakeholders are increasingly requesting companies to measure and disclose their product- and service-related emissions. Emissions are linked to every stage of the product or service

	life cycle - from raw material acquisition to end-of-life treatment. Understanding and measuring emissions across the life cycle can help companies focus emissions reduction efforts on the most energy intensive operations across the whole life cycle, rather than just in the production process.
Response options	Please complete the following table:

1	2
Assessment of life cycle emissions	Comment
Select from: • Yes • No, but we plan to start doing so within the next two years • No, and we do not plan to start doing so within the next two years	Text field [maximum 2,400 characters]

[Fixed row]

Requested content	General • Select "Yes" if you assess the life cycle emissions of any of your products or services. You will then be requested to provide further details in the following question. Comment (column 2) (optional) • If you do not assess life cycle emissions, you may wish to use this column to explain why not and/or explain your plan to start doing so in the future.
Explanation of terms	• Life cycle: Consecutive and interlinked stages of a product system, from the acquisition of raw materials or generation of natural resources to end-of-life. • Life cycle emissions: GHG emissions from a product or service throughout its life cycle.
Additional information	Life cycle assessment (LCA) A structured, comprehensive method of quantifying material- and energy-flows and their associated emissions in the life cycles of products (i.e. goods and services). Emissions assessments are a component of an LCA, but full LCAs cover all environmental impacts of a studied product. Relationship between the life cycle emissions of products and an organization's GHG emissions inventory The assessment of product life cycle emissions and of Scope 3 emissions serves a common purpose and often requires the same data (e.g. data collected from suppliers and other companies in the value chain). The sum of the life cycle emissions of each of a company's products, combined with additional Scope 3 categories (e.g. employee commuting, business travel, and investments), should approximate the company's total corporate GHG emissions (i.e. Scope 1 + Scope 2 + Scope 3). The Scope 3 inventory enables a company to identify the greatest GHG reduction opportunities across the entire corporate value chain, while product life cycle assessment (alternatively called the Product GHG inventory, see below) enables a company to target individual products with the greatest potential for reductions.

	Product GHG inventory A subset of an LCA that focuses only on the climate change impact (i.e. life cycle emissions). A product GHG inventory is a compilation and evaluation of the inputs, outputs, and potential GHG impacts of a product system throughout its life cycle. See the GHG Protocol's Product Life Cycle and Reporting Standard for further details.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CG

(7.71.1) Provide details of how your organization assesses the life cycle emissions of its products or services.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.71.
Change from last year	No change
Rationale	To acquire an overall understanding of the total carbon impact of a product or service, it is necessary to assess emissions from the production process and use phase, but also emissions associated with the acquisition and disposal of the materials that make up the product. This question provides data users with information on your organization's approach to assessing product life cycle emissions, including the life cycle stages covered and the methodologies used.
Response options	Please complete the following table:

1	2	3	4
Products/services assessed	Life cycle stage(s) most commonly covered	Methodologies/standards/tools applied	Comment
Select from: • All existing products/services • All new products/services under development • All existing and new products/services • Representative selection of products/services • On a case-by-case basis	Select from: • Cradle-to-gate • Cradle-to-grave • Cradle-to-cradle/closed loop production • Cradle-to-gate + end-of-life stage • Gate-to-gate • Use stage • End-of-life stage • Other, please specify	Select all that apply: • Bilan Carbone • EU Product Environmental Footprint (EUPEF) • French Product Environmental Footprint • GHG Protocol Product Accounting & Reporting Standard • ISO 14025 • ISO 14040 & 14044 • ISO 14067	Text field [maximum 2,400 characters]

• Products/services meeting certain criteria (please specify)		• PAS 2050 • Other, please specify	

[Fixed row]

Requested content	General • It is acknowledged that your organization's approach to assessing the life cycle emissions of products or services may vary – please select the options that best describe your most common approach. Products/services assessed (column 1) • Select the option that best describes your organization's approach to selecting products or services for assessment. If you wish to provide further details, you may do so in the "Comment" column. Life cycle stage(s) most commonly covered (column 2) • Select the life cycle stage(s) that you most commonly cover in your assessments. Refer to the explanation of terms below for definitions. Comment (column 4) (optional) • You may use this column to provide further details of your organization's approach to assessing life cycle emissions.

Explanation of terms	• Gate-to-gate: The emissions and removals attributed to a studied product while it is under the ownership or control of the reporting company.
	• Cradle-to-gate: A partial life cycle assessment from material acquisition (cradle) through to when the product leaves the reporting company's gate (i.e. immediately following the product's production). Includes the material acquisition & pre-processing stage and the production stage.
	• Cradle-to-grave: A full life cycle assessment of emissions and removals attributed to a studied product from material acquisition through to the material or product end-of-life (grave). Includes the material acquisition & pre-processing stage, production stage, use stage and end-of-life stage.
	• Cradle-to-cradle/closed loop production: A full life cycle assessment from material acquisition though to end-of-life material or product recycling (i.e. cradle-to-grave + recycling).
	• Life cycle stages (in line with the GHG Protocol Product Life Cycle Accounting and Reporting Standard):
	  ○ Material acquisition & pre-processing stage: A life cycle stage that begins when resources are extracted from nature and ends when the product components enter the gate of the studied product's production facility.
	  ○ Production stage: A life cycle stage that begins when the product components enter the production site for the studied product and ends when the finished studied product leaves the production gate.
	  ○ Use stage: A life cycle stage that begins when the consumer takes possession of the product and ends when the used product is discarded.

	○ End-of-life stage: A life cycle stage that begins when the used product is discarded by the consumer and ends when the product is returned to nature (e.g. incinerated) or allocated to another product's life cycle.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CG

(7.72) Does your organization assess the life cycle emissions of new construction or major renovation projects?

Question details	
Question dependencies	This question only appears if you select "New construction or major renovation of buildings" in response to 1.15.
Change from last year	No change
Rationale	GHG emissions or energy consumption are linked to every stage of the life cycle of buildings – starting from extraction or manufacturing of materials and their transportation, through construction, use phase and to final demolition of buildings. Understanding and consistent measurement of life cycle emissions of built projects is important for identifying the best opportunities for reducing lifetime emissions and target setting.
Response options	Please complete the following table:

1	2
Assessment of life cycle emissions	Comment
Select from: • Yes, quantitative assessment • Yes, qualitative assessment • Yes, both qualitative and quantitative assessment • No, but we plan to for upcoming projects • No, and we do not plan to for upcoming projects	Text field [maximum 2,400 characters]

[Fixed row]

Requested content	General • Select the option that best describes your organization's approach to assessing life cycle emissions of new construction or major renovation projects. ○ Quantitative assessment – select this option if you quantify the life cycle GHG emissions of your projects; ○ Qualitative assessment – select this option if you use only descriptive qualitative data for assessing GHG impacts of your projects. This may be

	the case, for example, if you are conducting a conceptual life cycle assessment – the first and simplest level of LCA. This can also be the case if you use best practice principles of low carbon design and material selection, without conducting bespoke carbon calculations. • If you select any of the "Yes" options, you will be requested to provide more details in the following question. Comment (column 2) (optional) • If you do not assess life cycle emissions, you may wish to use this column to explain why not and/or explain your plan to start doing so in the future.
Explanation of terms	• Life cycle emissions: GHG emissions of a product throughout its life cycle. • Life cycle: Consecutive and interlinked stages of a product system, from the acquisition of raw materials or generation of natural resources to end-of-life. • Life cycle assessment (LCA): A structured, comprehensive method of quantifying material- and energy-flows and their associated emissions in the life cycles of products (i.e. goods and services). Emissions assessments are a component of an LCA, but full LCA's cover all environmental impacts of a studied product.
Additional information	Relationship between the life cycle emissions of products and an organization's GHG emissions inventory The assessment of product life cycle emissions and of Scope 3 emissions serves a common purpose and often requires the same data e.g. data collected from suppliers and other companies in the value chain. The sum of the life cycle emissions of each of a company's products, combined with additional Scope 3 categories (e.g., employee commuting, business travel, and investments), should approximate the company's total corporate GHG emissions (i.e., Scope 1 + Scope 2 + Scope 3). (Although in practice, companies are not required to calculate life cycle inventories for individual products when calculating Scope 3 emissions). The Scope 3 inventory enables a company to identify the greatest GHG reduction opportunities across the entire corporate value chain, while product life cycle assessment enables a company to target individual products with the greatest potential for reductions. For additional information on this, refer to GHG Protocol Product Life Cycle Accounting and Reporting Standard. Qualitative assessment guidance The Carbon Smart Materials Palette® identifies key attributes that contribute to a material's embodied carbon impact and offers guidelines and options for emissions reductions. Developed by Architecture 2030, with support from members of the Embodied Carbon Network (ECN), the Carbon Smart Materials Palette provides attribute-based design and material specification guidance for immediately impactful, globally applicable and scalable embodied carbon reductions in the built environment.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CN, RE

(7.72.1) Provide details of how your organization assesses the life cycle emissions of new construction or major renovation projects.

Question details	
Question dependencies	This question only appears if you select "Yes, quantitative assessment", "Yes, qualitative assessment", or "Yes, both qualitative and quantitative assessment" in response to 7.72.
Change from last year	No change
Rationale	To acquire an overall understanding of a built project's total carbon impact, it is necessary to assess both the anticipated operational emissions and the embodied emissions. Low-carbon design practices, especially those targeting embodied carbon, are most efficient as well as most cost-effective in the early phases of a project. This question provides data users with information on how early in a project you normally assess carbon emissions, as well as life cycle stages and methodologies most commonly applied.
Response options	Please complete the following table:

1	2	3	4	5
Projects assessed	Earliest project phase that most commonly includes an assessment	Life cycle stage(s) most commonly covered	Methodologies/standards/tools applied	Comment
Select from: • All new construction and major renovation projects • New construction and major renovation projects meeting certain criteria (please specify) • On a case by case basis	Select from: • Pre-design phase • Design phase • Construction • Operation	Select from: • Cradle-to-gate • Cradle-to-practical completion/handover • Use stage • End-of-life stage • Cradle-to-grave • Whole life • Other, please specify	Select all that apply: • BBCA Label (Bâtiment Bas Carbone) • E+C- Label (Énergie Positive & Réduction Carbone) • Embodied Carbon in Construction Calculator (EC3) Tool • EN 15978 • EN 15804 • GHG Protocol - Product Life Cycle Accounting and Reporting Standard • ISO 14040/44 • ISO 14025 • One Click LCA • The Carbon Smart Materials Palette® • Whole life carbon assessment for the built environment (RICS) • Other, please specify	Text field [maximum 2,400 characters]

[Fixed row]

Requested content	General

	• This question requests details on how your organization assesses life cycle emissions of new construction or major renovation projects. It is acknowledged that these details may vary from project to project – please select the options that best describe your organization's most common approach. You will be able to provide specific details of conducted embodied carbon assessments in the following questions. Projects assessed (column 1) • Select the option that best describes which projects undergo assessment of life cycle emissions. Earliest project phase that most commonly includes an assessment (column 2) • The assessment of life cycle emissions may be undertaken at several phases in the project development. Select the earliest phase when the assessment is usually performed for your projects. Life cycle stage(s) most commonly covered (column 3) • Select the life cycle stage(s) that you typically include in your assessment. • Cradle-to-grave and whole-life approaches are encouraged, however more restricted scopes may be used to fit the needs of specific projects. Methodologies/standards/tools applied (column 4) • Indicate which methodologies, standards or tools you use in your analysis.

Explanation of terms	• Embodied carbon: Refers to emissions that arise from producing, procuring and installing the materials and components that make up a structure. It may also include the lifetime emissions from maintenance, repair, replacement and ultimately demolition and disposal.
	• Project phases:
	  o Pre-design phase: The phase when the core project requirements are defined. Usually includes developing an initial project brief and undertaking feasibility studies.
	  o Design phase: The phase when architectural and technical planning is developed. May include sub-stages such as concept design, developed design and technical design.
	  o Construction: Includes tendering and construction activities up to handover of the building.
	  o Operation: Building use phase.
	• Life cycle stages (in line with "Whole life carbon assessment for the built environment", RICS professional statement, 2017 and EN 15978: 2011):
	  o Cradle-to-gate: Includes raw materials extraction and supply, transport to manufacturing plant and manufacturing and fabrication. Emissions across this stage are calculated by assigning suitable embodied carbon factors to the given elemental material quantities: Cradle-to-gate emissions = Material quantity × Material embodied carbon factor.
	  o Cradle-to-practical completion/handover: Includes emissions in the previous stage (cradle-to-gate) plus the emissions from the construction process. In total, this stage includes raw materials extraction and supply, transport to manufacturing plant, manufacturing and fabrication, transportation of the

	materials and components from the factory gate to the project site and their assembly into a building. ○ Cradle-to-grave: Encompasses embodied carbon over the life cycle, including emissions in the previous stage (cradle-to-practical completion/handover) plus emissions from: ▪ Use stage: Any emissions relating to operational energy and water use as well as any embodied carbon impacts associated with maintenance, repair, replacement and refurbishment of building components; ▪ End-of-life stage: Any emissions arising from decommissioning, stripping out, disassembly, deconstruction and demolition operations as well as from transport, processing and disposal of materials at the end of life of the project. ○ Whole life: Includes emissions in the previous stage (cradle-to-grave) plus potential environmental benefits or burdens of materials and components beyond the life of the project. It captures the avoided emissions (or potential loads) from utilising repurposed items to substitute primary materials and can be used as a metric for quantifying circularity and assessing future resource efficiency.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CN, RE

(7.72.2) Can you provide embodied carbon emissions data for any of your organization's new construction or major renovation projects completed in the last three years?

Question details	
Question dependencies	This question only appears if you select "Yes, quantitative assessment" or "Yes, both qualitative and quantitative assessment" in response to 7.72.
Change from last year	No change
Rationale	Consideration of embodied carbon at the initial design and construction stages is necessary in order to achieve the required GHG reductions. The relative significance of embodied carbon is increasing, due to the decarbonization of the grid and increased operational efficiency of buildings. This and the follow-up question provide investors and other data users with information on the embodied carbon of buildings that your organization completed in the last three years or the reasons you are not able to calculate or disclose this data.
Response options	Please complete the following table:

1	2

Ability to disclose embodied carbon emissions	Comment
Select from: • Yes • No	Text field [maximum 2,400 characters]

[Fixed row]

Requested content	General • Indicate if you are able to disclose the results of your embodied carbon assessments for buildings (new construction or major renovation) completed in the last three years. If you respond "Yes", you will be requested to provide details in the following question. Comment (column 2) (optional) • If you selected "No", you may explain here why you cannot disclose the embodied emissions of your projects.
Explanation of terms	• Embodied carbon: Refers to emissions that arise from producing, procuring and installing the materials and components that make up a structure. It may also include the lifetime emissions from maintenance, repair, replacement and ultimately demolition and disposal.
Additional information	For more information on embodied carbon in the built environment, you may refer to: • "Bringing Embodied Carbon Upfront: Coordinated action for the building and construction sector to tackle embodied carbon" (2019) – the World Green Building Council's "call to action" report on embodied carbon that aims to spark a global conversation around the value and importance of reaching net zero embodied carbon; adopt a common language, definition, principles, milestones and feasible actions that can be used by all parts of the value chain. • "The Embodied Carbon Review" (Bionova Ltd, 2018) - global review of the status quo of construction sector embodied carbon reduction approaches. The report details how the embodied carbon, that is, the carbon emissions from construction materials, is addressed in certifications and regulations globally. • "Embodied Carbon – Practical Guidance" (2017) – developed by the UK Green Building Council, this guide is designed for those who need to write effective briefs for commissioning their first embodied carbon measurements, but who may be at an early stage of embodied carbon knowledge. The guidance explains some of the basics of embodied carbon, gives an overview of some suggested approaches and gives practical tips on how to use the outcomes of an assessment.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CN, RE

(7.72.3) Provide details of the embodied carbon emissions of new construction or major renovation projects completed in the last three years.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.72.2.
Change from last year	No change
Rationale	Consideration of embodied carbon at the initial design and construction stages is necessary in order to achieve the required GHG reductions. The relative significance of embodied carbon is increasing, due to the decarbonization of the grid and increased operational efficiency of buildings. This question provides investors and data users with information on the embodied carbon of buildings that you completed in the last three years or the reasons you are not able to calculate or disclose these data.
Response options	Please complete the following table. The table is displayed over several rows for readability.

1	2	3	4	5	6
Year of completion	Property sector	Type of project	Project name/ID (optional)	Life cycle stage(s) covered	Normalization factor (denominator)
Numerical field [enter a number between 1990-2025]	Select from: • Retail • Office • Industrial • Residential • Hotel • Lodging, Leisure & Recreation • Education • Technology/Science • Healthcare • Mixed use • Other, please specify	Select from: • New construction • Major renovation	Text field [maximum 2,400 characters]	Select from: • Cradle-to-gate • Cradle-to-practical completion/handover • Use stage • End-of-life stage • Cradle-to-grave • Whole life • Other, please specify	Select from: • IPMS 1 • IPMS 2 – Office • IPMS 2 – Industrial • IPMS 2 – Residential • IPMS 2 – Retail • IPMS 3 – Office • IPMS 3A – Industrial • IPMS 3A – Residential • IPMS 3A – Retail • IPMS 3B – Industrial • IPMS 3B – Residential • IPMS 3B – Retail • IPMS 3C – Residential • IPMS 3C – Retail • Internal building volume • Other, please specify

7	8	9	10	11
Denominator unit	Embodied carbon (kg/CO2e per the denominator unit)	% of new construction/major renovation projects in the last three years covered by this metric (by floor area)	Methodologies/standards/tools applied	Comment
Select from: • square foot	Numerical field [enter a number from 0-999,999,999,999	Percentage field [enter a percentage from 0-100 using a	Select all that apply:	Text field [maximum 2,400 characters]

• square meter • cubic foot • cubic meter	using a maximum of 2 decimal places]	maximum of 2 decimal places]	• BBCA Label (Bâtiment Bas Carbone) • E+C- Label (Énergie Positive & Réduction Carbone) • Embodied Carbon in Construction Calculator (EC3) Tool • EN 15978 • EN 15804 • GHG Protocol - Product Life Cycle Accounting and Reporting Standard • ISO 14040/44 • ISO 14025 • One Click LCA • Whole life carbon assessment for the built environment (RICS) • Other, please specify	

[Add row]

Requested content	Year of completion (column 1) • Provide the year of project completion. You are requested to disclose the data for your new construction or major renovation projects completed in the last 3 years. Project name/ID (optional) (column 4) • You may use this column to identify the project you are supplying data for. This is optional. Normalization factor (denominator) (column 6) • Select the normalization factor – area or volume – for your embodied carbon data. • For the data reported by area, you are encouraged to use floor area measurements in line with the International Property Measurement Standards (IPMS). % of new construction/major renovation projects in the last three years covered by this metric (by floor area) (column 9) • Indicate the percentage that this project contributes (by floor area) to the new construction and major renovation projects completed in the last three years. • The sum of all rows for this column should give the total proportion of the company's completed projects in the last three years where embodied carbon is evaluated (i.e. the total of 100% will indicate that embodied carbon was evaluated for all projects completed in the last three years). Comment (column 11) (optional) • You may provide further details on your assumptions, spatial boundaries, life cycle stages included, reference study periods and any other relevant information to help contextualize the provided embodied carbon figure.
Explanation of terms	• Property sectors (in line with 2021 GRESB Real Estate Assessment) ○ Retail: Includes the following property types:

	▪ Retail, High street: retail buildings located on the high street in a particular area, usually terraced properties located in the city center or other high-traffic pedestrian zones. ▪ Retail centers: shopping centers, strip malls, lifestyle centers and warehouses. ▪ Restaurants/Bars: buildings used primarily for social/entertainment purposes and characterized by most of the revenue being generated from the sale of beverages or food. ▪ Other: other retail properties that do not fit in the aforementioned property types. o Office: Includes the following property types: ▪ Corporate: low-rise, mid-rise and high-rise office properties. ▪ Medical office: examples may include but are not limited to offices specifically used for the purpose of medical administration, secondary research or other purposes, exclusive of the property types specified for Healthcare center. ▪ Business park: a group of office properties being classified as a single financial asset and for which individual property consumption data is not available. ▪ Other: other office properties that do not fit in the aforementioned property types. o Industrial: Includes the following property types: ▪ Distribution warehouses: industrial buildings used for the purpose of storing, processing and distribution of goods to wholesalers, retailers and/or consumers. ▪ Manufacturing: industrial buildings used for the purpose of manufacturing. Otherwise known as a factory or manufacturing plant. ▪ Industrial parks: areas zoned for the purpose of industrial development, where (lightweight) industrial buildings are grouped together with offices. Examples may include, but are not limited to: industrial estates, trading estates and enterprise zones. ▪ Other: other industrial properties that do not fit in the aforementioned property types. o Residential: Includes the following property types: ▪ Residential Multi-family: multiple residential dwelling spaces contained within one building. This includes low-, mid- and high-rise multi-family residential buildings. ▪ Family homes: includes both single-family homes and multi-dwelling units not including apartment blocks. A single-family home is a separate, free-standing residential building. A multi-dwelling family home includes those such as two-flats, duplex, semi-detached, and townhouses. Synonyms include: single-family home, single-detached dwelling, detached house, single-family residence, separate house, free-standing house, townhouse, duplex, condo, semidetached, villa. ▪ Student housing: residential buildings used for the purpose of housing students, otherwise known as student apartments, student houses, student residences, student quarters, and student accommodations.

	▪ Retirement living: otherwise known as retirement villages – communities comprised of people at a similar stage in life who are seeking a specific lifestyle. Retirement villages are made up of private homes and usually offer a range of shared facilities. ▪ Other: other residential properties that do not fit in the aforementioned property types. ○ Hotel: includes hotels, motels, youth hostels and resorts. ○ Lodging, leisure & recreation: indoor center used for the purpose of leisure and recreation. Examples include but not limited to: indoor arenas, fitness centers, performing arts centers, swimming centers and museums/galleries. ○ Education: includes schools, universities, libraries and other education properties. ○ Technology/Science: includes data centers, laboratory/life sciences properties and other specifically designed and equipped technology/science properties. ○ Healthcare: Includes the following property types: ▪ Healthcare center: buildings used for the purpose of primary healthcare. Examples may include, but are not limited to: hospitals, clinics, physical therapy centers and mental health centers. ▪ Senior homes: healthcare properties used for the purpose of housing seniors, otherwise known as senior assisted living homes, old-age homes, or aged care. ▪ Other: other healthcare properties that do not fit in the aforementioned property types ○ Mixed use: Mixed-use buildings that lack data availability by individual property type components. ○ Other: includes parking (indoors), self-storage, and other properties that do not fit in the aforementioned property types. • IPMS: The International Property Measurement Standard (IPMS) is a high-level and over-arching standard which aims to establish a globally consistent methodology for property measurement. CDP encourages using IMPS for reporting floor areas to ensure comparability of data. Detailed definitions and guidance are available on the IPMS website.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CN, RE

Product-level emissions

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

Question details	
Change from last year	No change

Rationale	CDP Supply Chain members are interested in the granularity of data that their suppliers can provide regarding the emissions intensities, lifecycle emissions, and emissions reduction initiatives. This type of data can allow all parties involved to observe product/service resource intensities, track changes in this Supply Chain-specific data, and progress being made via initiatives.
Response options	Select one of the following options: • Yes, I will provide data through the CDP x CO2 AI Product Ecosystem tool • Yes, I will provide data through the CDP questionnaire • No, I am not providing data

Requested content	General • To support with the calculation, management, and exchange of product-level data, CDP in partnership with CO2 AI, has developed the CDP x CO2 AI Product Ecosystem. Disclosers can utilize this powerful tool to provide this data to CDP Supply Chain Members. For more information, see CDP x CO2 AI Product Ecosystem and refer to CO2 AI's Help Center or reach out to your local CDP Contact. • If your requesting member has notified you of their intent or has already requested you via Product ecosystem, select "Yes, I will provide data through the CDP x CO2 AI Product Ecosystem tool" and go to CDP x CO2 AI Product Ecosystem to enter the tool environment. After submitting your responses, return to the CDP questionnaire to continue. • If you wish to provide data through the CDP questionnaire, select "Yes, I will provide data through the CDP questionnaire" and proceed to answer the next questions.

Tags		
Authority Type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Question dependencies	This question only appears if you select "Yes, I will provide data through the CDP Questionnaire", or "Yes, I will provide data through the CDP x CO2 AI Product Ecosystem tool" in response to 7.73.
Change from last year	No change
Rationale	This question aims to assess the GHG relevance of the products you are disclosing information on.
Response options	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]

Requested content	General • You may find out that a minority of products are responsible for a majority of your emissions (Pareto's principle or 80-20 rule). If that is the case, you might not need to disclose product level data for all your products but rather concentrate on the most relevant for you and your customers.

- In responding to this question, you should also consider the customers that are requesting information from you and the type of products they buy from you.
- In all cases, it is important for your customers to know the relevance of the products they are purchasing from you in terms of your overall GHG emissions. You can report this information by summing your Scope 1, 2 and 3 emissions.

Scope 1 emissions

- Direct greenhouse gas (GHG) emissions occur from sources that are owned or controlled by the company. Direct GHG emissions are principally the result of the following activities undertaken by the company:
    - Generation of electricity, heat or steam, resulting from the combustion of fuels in stationary sources such as boilers or furnaces;
    - Physical or chemical processes, e.g. clinker production within a kiln during cement production activities.
    - The transportation of materials, due to the combustion of fuels in company owned or controlled vehicles.
    - Fugitive emissions, which arise from the intentional or unintentional release of GHG emissions, e.g. equipment leaks from joints or seals; HFC emissions from the use of refrigeration and air conditioning equipment.
    - Direct CO_2 emissions from the combustion of biomass are not included Scope 1 reporting, but can be reported separately.
    - Scope 1 emissions only consider GHG emissions covered by the Kyoto Protocol (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6 and NF_3). GHGs not covered by the Kyoto Protocol are reported separately from Scope emissions.

Scope 2 emissions

- Scope 2 accounts for GHG emissions from the generation of purchased electricity, heat, steam or cooling consumed by the company.
- Purchased electricity is defined as electricity that is purchased or otherwise brought into the organizational boundary of the company.
- Scope 2 emissions physically occur at the facility where electricity is generated.
- Indirect emissions classified under Scope 2 include transmission and distribution (T&D) losses, and are reported by the company that owns or controls the T&D network.
- In addition to accounting for GHG emissions associated with electricity, heat, steam or cooling brought in to the organizational boundary, accounting for Scope 2 emissions allows companies to assess the risks and opportunities associated with changing electricity and GHG emissions costs.

Scope 3 emissions

- This is an optional reporting category which allows for the treatment of all other indirect emissions (e.g. those occurring from the transportation of purchased fuels).
- These emissions occur as a consequence of activities of the company, but result from sources not owned or controlled by the company itself.
- If outside the organizational boundaries the following are Scope 3 indirect emissions:
    - Extraction and production of purchased materials and fuels;
    - Transport related activities;
    - Electricity-related activities not included in Scope 2;
    - Leased assets, franchises and outsourced activities (dependent on the consolidation approach taken);
    - Use of sold products and services, and;

	○ Waste disposal. • Scope 1, 2 and 3 emissions are explained in greater depth in Chapter 4 of the GHG Protocol Corporate Standard.

Tags		
Authority Type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Question dependencies	This question only appears if you select "Yes, I will provide data through the CDP Questionnaire", or "Yes, I will provide data through the CDP x CO2 AI Product Ecosystem tool" in response to 7.73.
Change from last year	No change
Rationale	CDP Supply Chain members are interested in the emissions intensities associated with the goods/services they are purchasing. This question allows your organization to provide these details, while outlining the methodologies used by your organization to estimate these for your goods/services.
Response options	Please note that this table is designed so that only the customer that you select in column 1 "Requesting member" will be able to see the data relevant to them. If you enter an answer without selecting a requesting member, your answer will not be viewable at all. Please complete the following table. The table is displayed over several rows for readability.

1	2	3	4	5
Requesting member	Name of good/ service	Description of good/ service	Type of product	Unique product identifier
Select from: • Member drop-down list	Text field [maximum 2,400 characters]	Text field [maximum 2,400 characters]	Select from: • Final • Intermediate	Text field [maximum 50 characters]

6	7	8	9	10
Total emissions in kg CO_2e per unit	± % change from previous figure supplied	Date of previous figure supplied	Explanation of change	Methods used to estimate lifecycle emissions
Numerical field [enter a range of 0-	Percentage field [enter a percentage from -1000 -	DD/MM/YYYY	Text field [maximum 2,400 characters]	Select from:

999,999,999,999 using a maximum of 2 decimal places]	1000 using a maximum of 10 decimal places]			• Bilan Carbone • French Product Environmental Footprint • Greenhouse Gas Accounting Questionnaire Sector Guidance for Pharmaceutical Products and Medical Devices • GHG Protocol Product Accounting & Reporting Standard • ISO 14040 & 14044 • ISO 14025 • EU Product Environmental Footprint (EUPEF) • PAS 2050 • WBCSD Life Cycle Metrics for Chemical Products • Other, please specify

[Add row]

Requested content	General • Disclosers must check that the requesting members presented in this table are correct for their organization for the reporting period. Requesting member (column 1) • Note that only the requesting member you select in this column will be able to see the data relevant to them. If you enter any information without selecting a requesting member here, your answer will not be viewable at all. • Add a row for each product or service supplied to each requesting member that you are able to provide data for. Name of good/service (column 2) • Please provide the name of the product you will be providing data for. Description of good/service (column 3) • Please describe the good or service for which you are supplying product lifecycle GHG data. This may be a good such as a “180-gram tube of toothpaste in a cardboard package” or a service such as the “design of a color A5 advertising flyer.” This will be referred to as “a unit” in column 5 of 7.73.3. • Products from different locations may have markedly different footprints due to local circumstances, such as the use of different types of fuel or different generation methods used to create electricity for the grid. As long as it is not prohibited under the product footprinting methodology that you use, then you can differentiate between products made at different locations. You should however:

	○ Explain what you have done; ○ Give the locations that supply products to your requesting members, if applicable; and ○ Not selectively present or cherry-pick the locations that give the lowest product footprints, by providing either the product footprints for a range of locations or the average footprint figure across all locations. Type of product (column 4) • Use the drop-down menu to clearly identify the type of product or good/service for which you are providing data. • Intermediate products are inputs to the production of other goods or services that require further processing, transformation, or inclusion in another product before use by the end consumer. Intermediate products are not consumed by the end user in their current form. • Final products are goods and services that are consumed by the end user in their current form, without further processing, transformation, or inclusion in another product, though they may be sold to a retailer first before being sold on to the end user. The end user may be an individual or a business. Unique product identifier (column 5) • Specify the SKU (Stock Keeping Unit), or other client-specific reference number, associated with the product. SKU refers to the quantity of products bought by the customer for a particular price/amount of emissions. If you don't have an SKU or other client-specific reference number for the product/service you are providing data, please give the quantity of the named good/service provided in column 2. Total emissions in kg CO2e per unit (column 6) • Please give the emissions for the final/intermediate product in kg CO2e/unit of good or service. ± % change from previous figure supplied (column 7) • If you have previously reported a figure to CDP and are supplying an updated figure, please give the percentage difference between the two figures. Date of previous figure supplied (column 8) • Give the date of the previous figure in day(DD)/month(MM)/year(YY) format. Explanation of change (column 9) • Explain why the figure has changed. Methods used to estimate lifecycle emissions (column 10) • Please give details of the method that you have used to estimate lifecycle emissions. You can state if you have followed published standards like ISO 14040 & 14044, the GHG Protocol Product Life Cycle Accounting & Reporting Standard, PAS 2050 or one that you have developed yourself. You can also provide details on the following: boundary of assessment; GHG included/excluded; data sources references used.

Tags		
Authority Type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

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

Question details	
Question dependencies	This question only appears if you select "Yes, I will provide data through the CDP Questionnaire", or "Yes, I will provide data through the CDP x CO2 AI Product Ecosystem tool" in response to 7.73.
Change from last year	No change
Rationale	CDP Supply Chain members are interested in the lifecycle emissions of the goods/services they are purchasing. This question allows your organization to provide these details, while outlining the lifecycle stages considered by your organization for these goods/services.
Response options	

1	2	3	4	5
Requesting member	Name of good/ service	Scope	Lifecycle stage	Emissions at the lifecycle stage in kg CO2e per unit
Select from: • Member drop-down list	Text field [maximum 2,500 characters]	Select from: • Scope 1 • Scope 2 • Scope 3 • Scope 1 & 2 • Scope 1, 2 & 3 • Other, please specify	Select from: • Assembly • Consumer use • Cradle to gate • Cradle to grave • Distribution • End of life/final disposal • Energy/fuel • Manufacturing • Material acquisition • Operation of premises • Packaging • Pre-processing processing • Production • Recycling • Storage • Transportation • Waste • Other, please specify	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 10 decimal places]

6	7	8	9
Lifecycle stage under your ownership or control	Type of data used	Data quality	If applicable, describe the verification/assurance of the product emissions data

Select from: • Yes • No	Select from: • Primary • Secondary • Primary & secondary	Text field [maximum 2,500 characters]	Text field [maximum 5,000 characters]

[Add row]

Requested content	General • Note: Disclosers must check that the requesting members presented in this table are correct for their organization for the reporting period. Name of good/service (column 2) • Provide the name of the entries made in column 2 "Name of good/ service" of 7.73.2. Lifecycle stage (column 4) • Provide the lifecycle stages that are appropriate to the final/intermediate product for which you are providing data. • You should add a row for each subsequent lifecycle stage. • This column is used in conjunction with column 3 "Scope", whereby the combined data will give CDP an accurate lifecycle stage. You are able to mix and match, for example 'Waste' could be a result of Scope 1 emissions if the waste is a result of the direct processing of a product, or it could be a result of Scope 3 emissions when waste is created through customer use of a product. Continue to add rows for as many lifecycle stages you are able to provide data for. If the lifecycle stage you need is not available, for example, if you are trying to provide data for a service (in the case of a hotel stay, for instance – check in, use of room, check out, cleaning), select 'Other, please specify' and write in the required data. Emissions at the lifecycle stage in kg CO_2e per unit (column 5) • Report the emissions for the final/intermediate product in kg CO_2e/unit of good or service for the given life cycle stage(s). If you are providing data for only a stage~~/s~~ of the product's lifecycle, the figure you supply will be the figure for that stage or aggregate for those stages. Lifecycle stage under your ownership or control (column 6) • Select "Yes" or "No" from the drop-down menu, depending on whether you have control over that particular operation. Use the definition of control you have used for your organizational boundary (financial/operational control). Type of data used (column 7) • Specify if you have used primary data, secondary data or both to calculate the emissions at this stage of the lifecycle. According to the GHG Protocol Corporate Standard, primary data is data from specific activities within the company's value chain, while secondary data is data that is not from specific activities within the company's value chain. Therefore, data obtained from a supplier who used proxy methods would not be considered to be primary data.

	Data quality (column 8) • Provide any information you consider relevant for your customers relative to the data quality used to produce the figure for this lifecycle stage. Consult Chapter 8 of the GHG Protocol Product Life Cycle Accounting and Reporting Standard for help in assessing data quality. If applicable, describe the verification/assurance of the product emissions data (column 9) • CDP recognizes that the verification and assurance of product level data is still in the early stages of development. If you are taking steps to verify or assure the data you provide, please use the free text box to explain how. • Please include any information as to what standard, if any, was used (e.g. PAS 2050, GHG Protocol Product Life Cycle Accounting and Reporting Standard, etc.).

Tags		
Authority Type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.73.4) Please detail emissions reduction initiatives completed or planned for this product.

Question details	
Question dependencies	This question only appears if you select "Yes, I will provide data through the CDP Questionnaire", or "Yes, I will provide data through the CDP x CO2 AI Product Ecosystem tool" in response to 7.73.
Change from last year	No change
Rationale	CDP supply chain members are interested in emissions reduction initiatives completed or planned for the goods/services they are purchasing. This question allows your organization to provide these details, while outlining the emissions reductions achieved or projected.
Response options	

1	2	3	4	5
Name of good/service	Initiative ID	Description of initiative	Completed or planned	Emissions reductions in kg CO2e per unit
Text field [maximum 2,500 characters]	Select from: • Initiative 1 • Initiative 2 • Initiative 3 • Initiative 5 • Initiative 6 • Initiative 7 • Initiative 8 • Initiative 9	Text field [maximum 2,500 characters]	Select from: • Completed • Ongoing • Planned	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 2 decimal places and no commas]

	• Initiative 10 • Initiative 11 • Initiative 12 • Initiative 13 • Initiative 14 • Initiative 15 • Initiative 16 • Initiative 17 • Initiative 18 • Initiative 19 • Initiative 20 • Initiative 21 • Initiative 22 • Initiative 23 • Initiative 24 • Initiative 25 • Initiative 26 • Initiative 27 • Initiative 28 • Initiative 29 • Initiative 30			

[Add row]

Requested content	Name of good/service (column 1) • Provide the name of the entries made in column 2 of 7.73.2 or reported through the CDP x CO2 AI Product Ecosystem tool. I Initiative ID (column 2) • Identify the initiative by selecting from the dropdown menu. This number will be used to track the identified good/service throughout your response. Description of initiative (column 3) • Provide a brief description of what the initiative is about and how emissions reductions will be achieved. Completed or planned (column 4) • Select from the drop-down to specify if the initiative is completed or if it is being planned. Emissions reductions in kg CO2e per unit (column 5) • Provide the amount of reductions in emissions as kg CO_2e per unit of product.

Tags		
Authority Type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.73.5) Have any of the initiatives described in 7.73.4 been driven by requesting CDP Supply Chain members?

Question details	
Question dependencies	This question only appears if you select "Yes, I will provide data through the CDP Questionnaire", or "Yes, I will provide data through the CDP x CO2 AI Product Ecosystem tool" in response to 7.73.
Change from last year	No change
Rationale	Data users are interested in understanding the extent to which the initiatives you engage in (as disclosed in 7.73.4), have been driven by your requesting Supply Chain member. This can help provide an insight to the extent that organizations engage to improve resource efficiency and reduce their impact on the resource intensity of goods/services provided.
Response options	Select one of the following options: • Yes • No

Requested content	General • Select "Yes" or "No" from the drop-down menu provided in the portal to respond to this question. • If you select "Yes" you will be asked to answer question 7.73.6, if you select "No" you will have reached the end of this question set for individual products.

Tags		
Authority Type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.73.6) Explain which initiatives have been driven by requesting members.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.73.5.
Change from last year	No change
Rationale	Data users are interested in understanding the extent to which the initiatives you engage in (as disclosed in 7.73.4), have been driven by your requesting Supply Chain member. This can help provide an insight to the extent that organizations engage to improve resource efficiency and reduce their impact on the resource intensity of goods/services provided.
Response options	

1	2	3
Requesting member	Name of good/service	Initiative ID
Select from: [Drop-down menu of requesting members]	Text field [maximum 2,500 characters]	Select from: • Initiative 1 • Initiative 2 • Initiative 3 • Initiative 5 • Initiative 6 • Initiative 7 • Initiative 8 • Initiative 9 • Initiative 10 • Initiative 11 • Initiative 12 • Initiative 13 • Initiative 14 • Initiative 15 • Initiative 16 • Initiative 17 • Initiative 18 • Initiative 19 • Initiative 20 • Initiative 21 • Initiative 22 • Initiative 23 • Initiative 24 • Initiative 25 • Initiative 26 • Initiative 27 • Initiative 28 • Initiative 29 • Initiative 30

[Add row]

Requested content	General • Please note that this table (for 7.73.6) is designed so that only the customer that you select in column 1 ("Requesting member") will be able to see the data relevant to them. If you enter an answer without selecting a requesting member, your answer will not be viewable at all. • Note: Disclosers must check that the Requesting members presented in this table are correct for their organization for the reporting period. Requesting member (column 1) • Use this field to identify the requesting member or member(s) that have driven the emissions reduction initiative. Name of good/service (column 2) • Provide a text answer with the name of good/service. Initiative ID (column 3) • Identify the initiative using the ID that you have used previously in column 2 of 7.73.4.

Tags		
Authority Type	Supply Chain	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

Low-carbon products and services

(7.74) Do you classify any of your existing goods and/or services as low-carbon products?

Question details	
Change from last year	No change
Rationale	This question provides valuable information to investors who are seeking to increase their investment in companies providing low-carbon goods and services.
Response options	Select one of the following options: • Yes • No

Requested content	General • Low-carbon products and/or services are important to aid the transition to a net-zero carbon economy and to ensure that global average temperature increase above pre-industrial level stays below 1.5°C. • While there are various low-carbon product/service taxonomies and definitions, CDP broadly defines them as products or services which have comparatively lower emissions across their entire life cycle (i.e. from material acquisition through to product end-of-life) when compared to a baseline (business-as-usual) scenario or reference product of a similar function. Note that a product can only be considered low-carbon if its production and use does not prevent and/or contributes to reaching net-zero by 2050 or sooner. In that respect, any fossil fuel (including natural gas) energy generation not fitted with carbon capture and storage should not be considered as low-carbon. See "Additional information" for more guidance on how to define a low-carbon product or service. • The reduction in life cycle emissions between the baseline scenario or reference product and the low-carbon product or service is commonly referred to as the "avoided emissions". • There are various circumstances in which a company might consider that the use of its goods and services by others has the potential to reduce GHG emissions. • For example, an insulation company might consider that the installation of its insulation in another organization's premises might reduce the consumption of gas to heat the building, with the consequent reduction of GHG emissions from the property. Similarly, a consultancy providing advice services on energy efficiency/emissions reductions or a manufacturer producing a product with lower energy use requirements compared with equivalent products on the market could also consider themselves to reduce the GHG emissions of others. • Note that a company generating renewable electricity and selling it to a third party would be an example of this. In this case, the third party would calculate their Scope 2 market-based

	emissions with a zero emissions factor and, providing that the grid average factor is not zero, this would enable that third party to avoid emissions.
Explanation of terms	• Baseline scenario: A reference case that represents the events or conditions most likely to occur in the absence of the low-carbon product in the consequential approach to estimating avoided emissions. • Reference product: The product against which the low-carbon product is compared in the attributional approach to estimating avoided emissions. • Attributional approach: The most commonly used approach at present to estimate avoided emissions - measures the difference in total life-cycle GHG emissions between the low-carbon product(s) or service(s) and a reference product or service that provides an equivalent function. • Consequential approach: Measures the sum of total, system-wide changes in emissions or removals occurring because of the low-carbon product(s) or service(s) when compared to a baseline (business-as-usual) scenario without the low-carbon product. This approach helps to answer the question "What are the GHG impacts related to the full share of the activities that are expected to change when producing, consuming, and disposing of the product?".
Additional information	How do you define a low-carbon product? • Despite the increasing focus from investors on low-carbon products, there remains a level of ambiguity over the definition of what constitutes a 'low-carbon product'. Instead, there has been a greater focus on the benefits of their creation and use, one of which is aiding in the transition towards a net-zero carbon economy operating within the limits set out by leading climate scientists to ensure that global average temperature increase above pre-industrial level stays below 1.5°C. • Taxonomies, such as the Climate Bonds Taxonomy, are similarly based on this scientific criterion. At this stage, CDP encourages companies to use this criterion when evaluating whether a product is low carbon or not (i.e., companies should evaluate a product or service as low carbon if it is compatible with the level of decarbonization required to keep global temperature increase to 1.5°C compared to pre-industrial temperatures). • Therefore, while CDP encourages the development of common definitions across global markets about what constitutes a 'low-carbon product', companies should evaluate their low-carbon products in relation to their contribution to a net-zero carbon economy. Different goods and services will have pertinent characteristics in which they can do this. This can include improving the energy efficiency of certain technologies so that they are consistent with avoiding dangerous climate change or contributing to the decarbonization of high-emitting industries.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All (except FS)

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.74.
Change from last year	Minor change
Rationale	This question provides valuable information to investors who are seeking to increase their investment in companies providing low-carbon goods and services.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" function at the bottom of the table.

1	2	3	4	5	6	7
Level of aggregation	Taxonomy used to classify product(s) or service(s) as low-carbon	Type of product(s) or service(s)	Description of product(s) or service(s)	Have you estimated the avoided emissions of this low-carbon product(s) or service(s)	Methodology used to calculate avoided emissions	Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Select from: • Product or service • Group of products or services	Select from: • Low-Carbon Investment (LCI) Registry Taxonomy • Climate Bonds Taxonomy • The EU Taxonomy for environmentally sustainable economic activities • Green Bond Principles (ICMA) • The IEA Energy Technology Perspectives Clean Energy Technology Guide • WBCSD Guidance on Avoided Emissions • No taxonomy used to classify product(s) or	Select from dropdown list below	Text field [maximum 1,500 characters]	Select from: • Yes • No	Select from: • Addressing the Avoided Emissions Challenge-Chemicals sector • The Avoided Emissions Framework (AEF) • Evaluating the carbon-reducing impacts of ICT • Estimating and Reporting the Comparative Emissions Impacts of Products (WRI) • Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)	Select from: • Cradle-to-gate • Cradle-to-grave • Cradle-to-cradle/closed loop production • Cradle-to-gate + end-of-life stage • Gate-to-gate • Use stage • End-of-life stage • Other, please specify • Not applicable

	service(s) as low carbon • Other, please specify				• Methodology for Environmental Life-Cycle Assessment of Information and Communication Technology Goods, Networks and Services (ITU-TL.1410) • Other, please specify	

8	9	10	11	12	13
Functional unit used	Reference product/service or baseline scenario used	Life cycle stage(s) covered for the reference product/service or baseline scenario	Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario	Explain your calculation of avoided emissions, including any assumptions	Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
Text field [maximum 500 characters]	Text field [maximum 500 characters]	Select from: • Cradle-to-gate • Cradle-to-grave • Cradle-to-cradle/closed loop production • Cradle-to-gate + end-of-life stage • Gate-to-gate • Use stage • End-of-life stage • Other, please specify • Not applicable	Numerical field [enter a number from 0-99,999,999,999 using a maximum of 10 decimal places and no commas]	Text field [maximum 2,500 characters]	Numerical field [enter a number from 0-100 using a maximum of 3 decimal places and no commas]

[Add row]

Type of product(s) or service(s) drop-down options:

Select one of the following options:

Power
- Dry steam plant [EU]
- Flash steam plant [EU]
- Flywheel [EU]
- Geothermal electricity [EU]
- Hydropower [EU]
- Large-scale light-water nuclear reactor [EU]
- Liquid air energy storage (LAES) [EU]
- Lithium-ion batteries [EU, TO, TS]
- Multi-junction cell [EU]

- Onshore wind [EU]
- Organic Rankine cycle [EU]
- Parabolic trough [EU]
- Pumped storage [EU]
- Seabed fixed offshore wind turbine [EU]
- Small-scale light-water nuclear reactor [EU]
- Solar PV [EU, CN, RE]
- Solar tower [CN, RE, EU]
- Other, please specify

Heat
- Geothermal heat management
- Large-scale heat pump
- Latent heat storage (LHS)
- Solar thermal district heating [EU]
- Other, please specify

Biofuels
- Anaerobic digestor
- Bioethanol
- Biomass gasification
- Fatty acid methyl ester (FAME) [TO, TS]
- Hydrogenated vegetable oil
- Other, please specify

Hydrogen
- Electrolysis [EU]
- Hydrogen pipelines [EU]
- Hydrogen storage tanks
- Salt cavern hydrogen storage
- Other, please specify

Ammonia
- Ammonia tankers
- Other, please specify

Batteries
- Copper recycling
- Cathode recycling
- Other, please specify

Road
- Compressed biogas engines [TO, TS]
- Ethanol-fuelled diesel engine [TO, TS]
- Hydrogen fuel cell [TO, TS]
- Hydrogen Refuelling Station [TO, TS]
- Liquified biogas engines [TO, TS]
- Lithium-ion batteries [EU, TO, TS]
- Polymer electrolyte membrane fuel cell [TO, TS]
- Other, please specify

Rail
- Magnetic levitation [TO, TS]
- Other, please specify

Shipping
- Ammonia bunkering [TO, TS]
- Cold ironing, alternative maritime power [TO, TS]
- Foul Release Hull Coating [TO, TS]
- Liquified biogas engines [TO, TS]
- Rudder bulb [TO, TS]
- Other, please specify

Aviation
- Geared Turbo Fan/ Ultra-High Bypass Ratio engine [TO, TS]
- Other, please specify

Chemicals and plastics
- Chemical absorption of CO2 [CH, ST]
- Physical absorption of CO2 [CH]
- Other, please specify

Iron and steel
- Chemical absorption of CO2 [CH, ST]
- Other, please specify

Cement and concrete
- Calcined clay [CE]
- Other, please specify

Pulp and paper
- Lignin extraction [CH]
- Black liquor gasification [EU, CH]
- Other, please specify

Aluminum
- Additive manufacturing [CG]
- Other, please specify

CO_2 storage
- CO_2-enhance oil recovery [OG]
- Saline formation
- Other, please specify

Buildings construction and renovation
- Building orientation: Lighting [CN, RE]
- Building orientation: Thermal performance [CN, RE]
- Composite materials [CN]
- Dual flow ventilation [CN, RE]
- Dynamic simulation [CN, RE]
- Foam, caulk, tape or gaskets [CN]
- Modular components [CN, RE]
- Natural ventilation [CN, RE]
- Pre-casting [CN]
- Structural Insulated Panel [CN, RE]
- Thick crystal products or thin-film products [CN, RE]
- Other, please specify

Heating and cooling
- Advanced heat exchanger [CN, RE]
- Air-source heat pump using heat recovery [CN, RE]
- Aquifer thermal energy storage (ATES) [CN, RE]
- Borehole thermal energy storage (BTES) [CN]
- Central heat pump water heaters [CN, RE]
- Chilled water storage
- Ground-source heat pump
- Hot water tank
- Hydrogen boiler [CN, RE]
- Pellets burning stove and boiler [CN, RE]
- Solid-liquid ice storage [CN, RE]
- State-of-the-art air-to-air technology [CN, RE]
- Wood burning stove [CN, RE]
- Other, please specify

Cooking
- Bag digester
- Composite material digester [CN]
- Improved biomass cooking stove [CN, RE]
- Induction cooker [CN, RE]
- LPG cooking stove [CN, RE]
- Vitroceramic/hot plate cooking stoves [CN, RE]
- Other, please specify

Lighting
- Conventional LED
- Organic LED
- Polymer LED [CN, RE]
- Other, please specify

Systems integration
- Double smart grid
- Smart meter
- Other, please specify

CO2 transport
- Pipeline
- Other, please specify

Other
- Hybrid flexible demand and battery network
- Induction heating for large-scale industrial processes
- Infrared heating for large-scale industrial processes
- Other, please specify

Requested content	Level of aggregation (column 1) • Select from the drop-down menu what level of aggregation you wish to report on in this row. For example, you may only produce one product that can be classified as 'low carbon.' In this case you may want to report at the product level of aggregation. Alternatively, if your

company produces several low carbon products that have a similar function, you may wish to report at the "Group of products or services" level.

- Note that you can add multiple rows to this table and report different levels of aggregation. For each row, please select the level of aggregation that is most appropriate to your stakeholders.

Taxonomy used to classify product(s) or service(s) as low carbon (column 2)

- As investors seek to increase the proportion of their portfolio invested in low carbon products there is an effort to establish standardized taxonomies to classify and define low-carbon products and services.
- Select the taxonomy used to classify the product(s) or service(s) as low-carbon. If you used a taxonomy that is not listed, select "Other, please specify" and state the taxonomy used.
- If you are reporting a product or service that you consider to be low-carbon, but it has not been classified as such by any taxonomy, select "No taxonomy used to classify product(s) or service(s) as low-carbon".

Type of product(s) or service(s) (column 3)

- Select the category and type of product or service from the list of options provided, which have been developed using the IEA Energy Technology Perspectives (ETP) Clean Energy Technology Guide and the Climate Bonds Taxonomy
- If the product(s) or service(s) you are disclosing does not fall into any of the types provided, select "Other". If the product(s) or service(s) is not listed within the relevant type of product/service, select "Other, please specify".

Description of product(s) or service(s) (column 4)

- Use this column to describe the product(s) or service(s) that you are disclosing in this row
- If you have selected "No taxonomy used to classify product(s) or service(s) as low-carbon" in column 2, provide a rationale as to why you consider the product(s) or service(s) to be low-carbon.

Have you estimated the avoided emissions of this low-carbon product(s) or services(s)? (column 5)

- The reduction in life cycle emissions between a baseline (business-as-usual) scenario or reference product and the low-carbon product or service is commonly referred to as the "avoided emissions".
- Indicate whether your organization has attempted to calculate the avoided emissions of the low-carbon product(s) or service(s) described in column 4. You will be requested to provide details of your estimation approach in the subsequent columns.
- To estimate the avoided emissions of a low-carbon product or service, companies could follow either an "attributional" or "consequential" estimation approach:
    - An attributional estimation approach – the most commonly used approach at present - measures the difference in total life-cycle GHG emissions between the low-carbon product(s) or service(s) and a reference product or service that provides an equivalent function.
    - A consequential estimation approach measures the sum of total, system-wide changes in emissions or removals occurring because of the low-carbon product(s) or service(s) when compared to a baseline (business-as-usual)

scenario without the low-carbon product. This approach helps to answer the question "What are the GHG impacts related to the full share of the activities that are expected to change when producing, consuming, and disposing of the product?".

- For more information on these approaches refer to WRI's paper "Estimating and Reporting the Comparative Emissions Impacts of Products" and the Avoided Emissions Framework.

Methodology used to calculate avoided emissions (column 6)

- This column only appears if you select "Yes" in "Have you estimated the avoided emissions of this low-carbon product(s) or service(s)" (column 5).
- Methodologies to calculate avoided emissions are still in the infancy of their development. CDP will keep refining the list of methodologies to best reflect those that are considered best practice.

Life cycle stage(s) covered for the low-carbon product(s) or service(s) (column 7)

- This column only appears if you select "Yes" in "Have you estimated the avoided emissions of this low-carbon product(s) or service(s)" (column 5).
- Select the life cycle stages of the low-carbon product(s) or service(s) covered in your avoided emissions calculation. Refer to the "Explanation of terms" for definitions of the life cycle stages.
- Where practical, a full life-cycle approach (cradle-to-grave or cradle-to-cradle/closed loop production) should be taken to estimate the avoided emissions of the low-carbon product(s) or service(s).
- If you have not used a life cycle approach, select "Not applicable" and explain why not in column 12 "Explain your calculation of avoided emissions, including any assumptions".

Functional unit used (column 8)

- This column only appears if you select "Yes" in "Have you estimated the avoided emissions of this low-carbon product(s) or service(s)" (column 5).
- Avoided emissions are usually expressed in terms of a functional unit, which should be applicable to both the low-carbon product(s) or service(s) and the reference product/service or baseline (business-as-usual) scenario.
- The functional unit refers to the performance characteristics and services delivered by the product(s) or service(s) and should be clearly defined and measurable.
- A functional unit will typically define the following three parameters:
    - The function of the product(s) or service(s);
    - The duration or service life of the product(s) or service(s) (i.e. the amount of time needed to fulfil the function); and
    - The quality of the product(s) or service(s).
- For example, a functional unit to compare an electric vehicle with a conventional vehicle could be "operating an electric passenger vehicle for 50,000km vs. a similar-sized internal combustion engine passenger vehicle for 50,000km".

Reference product/service or baseline scenario used (column 9)

	• This column only appears if you select "Yes" in "Have you estimated the avoided emissions of this low-carbon product(s) or service(s)" (column 5). • Specify and explain the choice of the reference product/service or baseline (business-as-usual) scenario used to calculate the estimated avoided emissions in column 11. • Note that the reference product should represent the most likely alternative solution that would be used for a certain function in the absence of your disclosed low-carbon product(s) or service(s). Life cycle stage(s) covered for the reference product/service or baseline scenario (column 10) • This column only appears if you select "Yes" in "Have you estimated the avoided emissions of this low-carbon product(s) or service(s)" (column 5). • Select the life cycle stages covered in your avoided emissions calculation for the reference product/service or baseline scenario specified in column 9. Refer to the "Explanation of terms" for definitions of the life cycle stages. • Note that credible comparisons should cover the same life cycle stages for the low-carbon product/service and the reference product/service. • If you have not used a life cycle approach, select "Not applicable" and explain why not in column 12 "Explain your calculation of avoided emissions, including any assumptions". Estimated avoided emissions (metric tons CO_2e per functional unit) compared to reference product/service or baseline scenario (column 11) • This column only appears if you select "Yes" in "Have you estimated the avoided emissions of this low-carbon product(s) or service(s)" (column 5). • Quantify the estimated avoided emissions of your low-carbon product(s) or service(s), compared to the reference product/service or baseline scenario specified in column 9. • For example, if using an attributional approach, this figure can be calculated using the equation: "Life-Cycle Emissions of Reference Product – Life-Cycle Emissions of Low-Carbon Product". If the resulting figure is positive, the assessed product emits less over its life cycle when compared to the reference product and as such, the positive figure represents the "avoided emissions" of the low-carbon product(s) or service(s). • Note that the avoided emissions should be estimated in relation to the functional unit specified in column 8. Explain your calculation of avoided emissions, including any assumptions (column 12) • This column only appears if you select "Yes" in "Have you estimated the avoided emissions of this low-carbon product(s) or service(s)" (column 5). • State whether you used an attributional or consequential approach to estimate the avoided emissions and explain the reason for your choice. If you used a consequential approach, clarify the boundary of your analysis and what effects you have included in your assessment (e.g. rebound and secondary enabling effects). • Include the figures used in your calculation and any critical assumptions that you made (e.g., emissions factors, performance characteristics, allocation methods, data sources and any uncertainties) to help data users to assess the credibility and reliability of the results.

	Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year (column 13) • State the revenue generated from the low-carbon product(s) or service(s) described in column 4 as a percentage of your organization's total revenue in the reporting year. • Enter the figure for 'revenue' as would be declared in your financial statement (sometimes referred to a 'turnover' or 'sales'). Under the International Financial Reporting Standard this would be the inflow of income arising in the course of an entity's ordinary activities, with deductions made (such as for sales returns, allowances and discounts). This figure is commonly used by investors to assess the income-generating ability of a business.

Explanation of terms	• Baseline scenario: A reference case that represents the events or conditions most likely to occur in the absence of the low-carbon product in the consequential approach to estimating avoided emissions.
	• Reference product: The product against which the low-carbon product is compared in the attributional approach to estimating avoided emissions.
	• Gate-to-gate: The emissions and removals attributed to a studied product while it is under the ownership or control of the reporting company.
	• Cradle-to-gate: A partial life cycle assessment from material acquisition (cradle) through to when the product leaves the reporting company's gate (i.e. immediately following the product's production). Includes the material acquisition & pre-processing stage and the production stage.
	• Cradle-to-grave: A full life cycle assessment of emissions and removals attributed to a studied product from material acquisition through to the material or product end-of-life (grave). Includes the material acquisition & pre-processing stage, production stage, use stage and end-of-life stage.
	• Cradle-to-cradle/closed loop production: A full life cycle assessment from material acquisition though to end-of-life material or product recycling (i.e. cradle-to-grave + recycling).
	• Life cycle stages (in line with the GHG Protocol Product Life Cycle Accounting and Reporting Standard):
	  o Material acquisition & pre-processing stage: A life cycle stage that begins when resources are extracted from nature and ends when the product components enter the gate of the studied product's production facility.
	  o Production stage: A life cycle stage that begins when the product components enter the production site for the studied product and ends when the finished studied product leaves the production gate.
	  o Use stage: A life cycle stage that begins when the consumer takes possession of the product and ends when the used product is discarded.
	  o End-of-life stage: A life cycle stage that begins when the used product is discarded by the consumer and ends when the product is returned to nature (e.g. incinerated) or allocated to another product's life cycle.

Example response	See below

Worked examples of low-carbon products

Example 1: Company A is a paper production company. It has a range of products that can be classified as low-carbon as these products are made from recycled material so have comparatively lower emissions than paper made from virgin material.

Level of aggregation	Taxonomy used to classify product(s) or service(s) as low-carbon	Type of product(s) or service(s)	Description of product(s) or service(s)	Have you estimated the avoided emissions of this low-carbon product(s) or service(s)	Methodology used to calculate avoided emissions	Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Product or service	Climate Bonds Taxonomy	Pulp and paper: Other, please specify	We have manufactured/sold printing paper that consists of 50% recycled material. These products can be classified as low-carbon products because manufacturing of them requires less raw materials and therefore very little emissions are embedded in the products.	Yes	Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)	Cradle-to-grave

Functional unit used	Reference product/service or baseline scenario used	Life cycle stage(s) covered for the reference product/service or baseline scenario	Estimated avoided emissions (metric tons CO_2e per functional unit) compared to reference product/service or baseline scenario	Explain your calculation of avoided emissions, including any assumptions	Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
75GSM printing paper supplying 1000 A4 sheets with 50% recycled material	75GSM printing paper supplying 1000 A4 sheets with industry average amount of virgin material	Cradle-to-grave	6000	We followed an attributional approach to our LCA and measured the difference in total cradle-to grave emissions between our product and an industry average product. The calculation was limited in that we were unable to calculate indicators for ocean warming or herbicide use, and freshwater or wetland disturbance due to lack of data. We used the following Global Warming Potential 20 (GWP20) factors from the IPCC 5th assessment report: Carbon Dioxide (CO2): 1, Methane (CH4): 102, Nitrous Oxide (N2O): 264, Sulfur Hexafluoride (SF6): 17,500, HFC-134a: 3,710, Nitrogen Trifluoride (NF3): 12,800,	65

				Black Carbon: 3,385, Organic Carbon: -128, Sulfur Dioxide (SO2): -274, Nitrogen Oxide (NOx) 122 We used a mass-based allocation for energy and resource inputs where multiple products were being produced. To allocate the impacts from the recycled material we followed the most common 100-0 cut-off approach, where the environmental impacts are only included for one lifecycle of the product. In other words, recycled fiber is not allocated to any of the impacts associated with the original fiber sourcing or processing, but only the impacts of the paper recycling process. We identified a representative set of pulp and paper mills across our region for which mill-level data is available. Our data is then averaged across all the mills producing the same paper grade in the region. We also used environmental data from government to calculate some of the environmental impacts. We then compared these averages to our data to calculate avoided emissions. The estimation of avoided emissions is based on the differences that arise from our higher content of recycled material: A 30% decrease in wood use, a 10% decrease in total energy, and minor decreases in other impacts (water usage, solid waste produced, and other pollutants).	

Example 2: Company B is an automotive manufacturer. Its electric vehicles are considered low-carbon as they have comparatively lower use stage emissions when compared with their internal combustion engine vehicles.

Level of aggregation	Taxonomy used to classify product(s) or service(s) as low-carbon	Type of product(s) or service(s)	Description of product(s) or service(s)	Have you estimated the avoided emissions of this low-carbon product(s) or service(s)	Methodology used to calculate avoided emissions	Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Group of products or services	The IEA Energy Technology Perspectives Clean Energy Technology Guide	Road: Lithium-ion batteries	Our company has a range of electric passenger vehicles that use lithium ion batteries.	Yes	Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)	Use stage

Functional unit used	Reference product/service or baseline scenario used	Life cycle stage(s) covered for the reference product/service or baseline scenario	Estimated avoided emissions (metric tons CO_2e per functional unit) compared to reference product/service or baseline scenario	Explain your calculation of avoided emissions, including any assumptions	Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
Operating a passenger car for 10,000 passenger-kilometers.	Our range of passenger vehicles that use internal combustion engines.	Use stage	22700	Our calculation of avoided emissions was based on the difference in emissions during operation. This simplified our calculations as we could set aside the emissions from energy production. This was a key limitation to our assessment, and we are working to improve our methodology to cover the full life cycle of our products. We calculated the emissions of our electric vehicles during use and the emissions of our internal combustion engine vehicles during use (over 10,000km as per our functional unit). We then calculated the difference as the emissions avoided by our electric vehicles. We thus took an attributional approach to the estimation. We obtained our emissions factors from the IPCC's 5th Assessment report, most importantly: Carbon Dioxide (CO2): 1, Nitrous Oxide (N2O): 264	80

				Nitrogen Oxide (NOx) 122 The estimation was based on the assumption that both types of vehicles were operated in a similar way with a similar average speed.	

Additional information	How do you define a low-carbon product? • Despite the increasing focus from investors on low-carbon products, there remains a level of ambiguity over the definition of what constitutes a 'low-carbon product'. Instead, there has been a greater focus on the benefits of their creation and use, one of which is aiding in the transition towards a net-zero carbon economy operating within the limits set out by leading climate scientists to ensure that global average temperature increase above pre-industrial level stays below 1.5°C. • Taxonomies, such as the Climate Bonds Taxonomy, are similarly based on this scientific criterion. At this stage, CDP encourages companies to use this criterion when evaluating whether a product is low carbon or not (i.e., companies should evaluate a product or service as low carbon if it is compatible with the level of decarbonization required to keep global temperature increase to 1.5°C compared to pre-industrial temperatures). • Therefore, while CDP encourages the development of common definitions across global markets about what constitutes a 'low-carbon product', companies should evaluate their low-carbon products in relation to their contribution to a net-zero carbon economy. Different goods and services will have pertinent characteristics in which they can do this. This can include improving the energy efficiency of certain technologies so that they are consistent with avoiding dangerous climate change or contributing to the decarbonization of high-emitting industries.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All (except FS)

(7.75) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

Question details	
Change from last year	No change
Rationale	This question seeks to understand how low-carbon transport technologies are being implemented by analyzing the level of proliferation and market penetration of alternative drive train and engine technologies. This is mostly relevant for LDV and HDV, for which alternative technologies are available or being piloted. This is also relevant for aviation, rail and marine companies who can use this as a more open-ended question to indicate what they are doing in the low-carbon technology field.

Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

Activity	Metric	Technology	Metric figure	Metric unit	Explanation
Select from: [Drop down options determined by transport modes selected in 1.21]	Select from: • Production • Sales • Fleet adoption • Yearly purchase • Other, please specify	Select from: LDV / HDV • Vehicle using bio-fuel • Conventional hybrid • Plug-in hybrid (PHEV) • Battery electric vehicle (BEV) • Fuel cell electric vehicle (FCEV) • Other, please specify Rail • Other, please specify Marine • Other, please specify Aviation • Other, please specify	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places]	Select from: LDV / HDV • Units • % of fleet • % of total sales • % of estimated yearly VKT • % of estimated yearly VMT • % of estimated lifetime VKT • % of estimated lifetime VMT • Other, please specify Rail • Other, please specify Marine • Other, please specify Aviation • Other, please specify	Text field [maximum 2,400 characters]

[Add row]

Requested content	Activity (column 1) • Select the activity that you would like to provide data for. • Activity modes presented in drop-down options are determined by transport modes selected in response to1.21.

	Metric (column 2) • Select the relevant drop-down that best describes the transport metric for transport sales and/or services that you will present information for in columns 3 – 6. If you select "Other, please specify", provide a label for the Metric. Technology (column 3) • Select the relevant drop-down that best describes the low-carbon vehicle transport technology that you will quantify in columns 4 and 5. • If you select "Other, please specify", provide a label for the technology. Metric figure (column 4) • State the numerical value of the metric used to quantify the level of implementation of low-carbon technologies within your transport activities in the reporting year. • You may enter a number no larger than 999,999,999,999, using a maximum of 2 decimals places. Negative numbers are not allowed. Metric unit (column 5) • Select relevant metric unit. If you select "Other, please specify", provide a label for the Metric unit. Explanation (column 6) • Discuss any assumptions, or simplifications made to derive or establish metric values. • If you used any industry or relevant existing standards and/or methodologies, please mention them and discuss their use here. • Provide any additional explanation necessary to capture the full complexity of the metric reported.
Explanation of terms	• Vehicle Kilometers Traveled (VKT): the total kilometers traveled by all vehicles on a transport system during a given period of time. • Vehicle Miles Traveled (VMT): the total miles traveled by all vehicles on a transport system during a given period of time.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	TO, TS

(7.76) Does your organization manage net zero carbon buildings?

Question details	
Question dependencies	This question only appears if you select "Buildings management" in response to 1.15.
Change from last year	No change

Rationale	In line with the TCFD recommendations, regulatory measures such as a transition to low-carbon properties may affect the financial viability of existing properties. Understanding the percentage of net zero carbon buildings provides investors with an indication of the potential impact of regulatory measures on your portfolio/ buildings you deliver.
Response options	Select one of the following options: • Yes • No, but we plan to in the future • No, and we do not plan to in the future

Requested content	General • Indicate whether your organization has net zero carbon buildings under management. If you respond "Yes", you will be requested to provide details on your net zero carbon buildings in the following question. • If you respond "No", you will be requested to explain your organization's plan with regards to managing net zero carbon buildings in the future, or explain why you do not plan to do so.

Explanation of terms	• Net zero carbon building: In line with the World Green Building Council's definition, a building that is highly energy efficient and fully powered from on-site and/or off-site renewable energy sources. More specific definitions have been developed by some local Green Building Councils as well as in some national regulations. If you are operating in countries/areas where the definition of net zero carbon building has been defined in a legal document (e.g. building regulations and energy decrees) or by the local Green Building Council, you should apply that definition when responding to this question. Some of the examples of existing/proposed definitions include:
	  o Japan: Net Zero Energy Building (ZEB): definition proposed by Ministry of Economy, Trade and Industry - building with considerably reduced annual energy consumption by saving as much energy as possible via better heat insulation, solar shading, natural energy and high-efficiency equipment as well as creating energy (e.g., with photovoltaic power generation), while maintaining comfortable environments. The goal is to achieve net zero energy consumption by creating [renewable] energy while achieving at least 50% higher energy saving than prescribed by the Energy Saving Standard.
	  o United Kingdom: The Net Zero Carbon Buildings: A Framework Definition: developed by UK Green Building Council sets out definitions and principles around two approaches to net zero carbon – for construction and operational energy, which are of equal importance. Net zero carbon for both construction and operational energy represents the greatest level of commitment to the framework:
	  ▪ Net zero carbon – construction: when the amount of carbon emissions associated with a building's product and construction stages up to practical completion is zero or negative, through the use of offsets or the net export of on-site renewable energy;
	  ▪ Net zero carbon – operational energy: when the amount of carbon emissions associated with the building's operational energy on an annual basis is zero or negative. A net zero carbon building is highly energy efficient and powered from on-site and/or off-site renewable energy sources, with any remaining carbon balance offset.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	RE

(7.76.1) Provide details of the net zero carbon buildings under your organization's management in the reporting year.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.76.
Change from last year	No change
Rationale	In line with the TCFD's recommendations, regulatory measures such as a transition to low-carbon properties may affect the financial viability of existing properties. Understanding the percentage of net zero carbon buildings provides investors with an indication of the potential impact of regulatory measures on your portfolio. It is acknowledged that certification schemes for net zero carbon buildings are not yet widely available, but where they are, they provide additional credibility to self-evaluated and reported statements regarding net zero carbon.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

Property sector	Definition(s) of net zero carbon applied	% of net zero carbon buildings in the total portfolio (by floor area)	Have any of the buildings been certified as net zero carbon?	% of buildings certified as net zero carbon in the total portfolio (by floor area)	Certification scheme(s)	Comment
Select from: • Retail • Office • Industrial • Residential • Hotel • Lodging, Leisure & Recreation • Education • Technology/Science • Healthcare • Mixed use • Other, please specify	Select all that apply: • National/local green building council standard(s), please specify • National/local government standard(s),	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Select from: • Yes • No	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Select all that apply: • CaGBC Zero Carbon Building Standard – Performance • Carbon neutral certification against the National Carbon Offset Standard for Building through NABERS Energy	Text field [maximum 2,400 characters]

	please specify • International standard(s), please specify • Other, please specify				• Carbon neutral certification against the National Carbon Offset Standard for Building through Green Star – Performance Innovation Challenges • carboNZeroCertTM (NZGBC) • E+C- Label (Énergie Positive & Réduction Carbone) • EDGE Zero Carbon • Climate Positive (DGNB) • GBC Brazil Zero Energy Standard • GBCSA Net Zero/Net Positive Carbon Certification • GREENSHIP Zero (GBC Indonesia) • Indian GBC Zero Energy Standard • ILFI Living Building Challenge • ILFI Zero Carbon Certification • ILFI Zero Energy Building Certification • LEED Zero Carbon • LEED Zero Energy • NollCO2 (SwedenGBC) • Other, please specify	

[Add row]

Requested content	General • This question requests data on net zero buildings aggregated per property sector. Definition(s) of net zero carbon applied (column 2)

	• If you are operating in countries/areas where the definition of a net zero carbon building has been defined in a legal document (e.g. building regulations and energy decrees) or by the local Green Building Council, you should apply that definition when responding to this question. • If you are managing buildings in multiple jurisdictions, different definitions of net zero may apply to them. You are requested to specify all of them in that case. % of net zero carbon buildings in the total portfolio (by floor area) (column 3) • Indicate the percentage that the net zero carbon buildings within this property sector contribute (by floor area) to your total portfolio in the reporting year. • The sum of all rows for this column should give the total proportion of your portfolio which is net zero carbon (i.e. a total sum of 100% will indicate that all buildings in your portfolio in the reporting year are net zero carbon). Have any of the buildings been certified as net zero carbon? (column 4) • Indicate if any of your net zero carbon buildings have been certified. If you respond "Yes", you will be requested to provide details in the following columns. • It is acknowledged that certification schemes for net zero carbon buildings are not yet widely available, but where they are, they provide additional credibility to self-evaluated and reported statements regarding net zero carbon. % of buildings certified as net zero carbon in the total portfolio (by floor area) (column 5) • This column will appear only if you selected "Yes" in column 4. • Indicate the percentage that the certified net zero carbon buildings within this property sector contribute (by floor area) to your total portfolio in the reporting year. • The sum of all rows for this column should give the total proportion of your portfolio which is certified as net zero carbon (i.e. a total sum of 100% will indicate that all buildings in your portfolio in the reporting year are certified as net zero carbon). Comment (column 7) (optional) • You may provide additional information to contextualise your response e.g. the geography of your portfolio and any discrepancies in the definitions of net zero carbon buildings applied in these jurisdictions.

Explanation of terms	• Property sectors (in line with 2021 GRESB Real Estate Assessment)
	  o Retail: Includes the following property types:
	  ▪ Retail, High street: retail buildings located on the high street in a particular area, usually terraced properties located in the city center or other high-traffic pedestrian zones.
	  ▪ Retail centers: shopping centers, strip malls, lifestyle centers and warehouses.
	  ▪ Restaurants/Bars: buildings used primarily for social/entertainment purposes and characterized by most of the revenue being generated from the sale of beverages or food.
	  ▪ Other: other retail properties that do not fit in the aforementioned property types.
	  o Office: Includes the following property types:
	  ▪ Corporate: low-rise, mid-rise and high-rise office properties.
	  ▪ Medical office: examples may include but are not limited to offices specifically used for the purpose of medical administration,

	secondary research or other purposes, exclusive of the property types specified for Healthcare center. ▪ Business park: a group of office properties being classified as a single financial asset and for which individual property consumption data is not available. ▪ Other: other office properties that do not fit in the aforementioned property types. o Industrial: Includes the following property types: ▪ Distribution warehouses: industrial buildings used for the purpose of storing, processing and distribution of goods to wholesalers, retailers and/or consumers. ▪ Manufacturing: industrial buildings used for the purpose of manufacturing. Otherwise known as a factory or manufacturing plant. ▪ Industrial parks: areas zoned for the purpose of industrial development, where (lightweight) industrial buildings are grouped together with offices. Examples may include, but are not limited to: industrial estates, trading estates and enterprise zones. ▪ Other: other industrial properties that do not fit in the aforementioned property types. o Residential: Includes the following property types: ▪ Residential Multi-family: multiple residential dwelling spaces contained within one building. This includes low-, mid- and high-rise multi-family residential buildings. ▪ Family homes: includes both single-family homes and multi-dwelling units not including apartment blocks. A single-family home is a separate, free-standing residential building. A multi-dwelling family home includes those such as two-flats, duplex, semi-detached, and townhouses. Synonyms include: single-family home, single-detached dwelling, detached house, single-family residence, separate house, free-standing house, townhouse, duplex, condo, semidetached, villa. ▪ Student housing: residential buildings used for the purpose of housing students, otherwise known as student apartments, student houses, student residences, student quarters, and student accommodations. ▪ Retirement living: otherwise known as retirement villages – communities comprised of people at a similar stage in life who are seeking a specific lifestyle. Retirement villages are made up of private homes and usually offer a range of shared facilities. ▪ Other: other residential properties that do not fit in the aforementioned property types. o Hotel: includes hotels, motels, youth hostels and resorts. o Lodging, leisure & recreation: indoor center used for the purpose of leisure and recreation. Examples include but not limited to: indoor arenas, fitness centers, performing arts centers, swimming centers and museums/galleries. o Education: includes schools, universities, libraries and other education properties.

	○ Technology/Science: includes data centers, laboratory/life sciences properties and other specifically designed and equipped technology/science properties. ○ Healthcare: Includes the following property types: ▪ Healthcare center: buildings used for the purpose of primary healthcare. Examples may include, but are not limited to: hospitals, clinics, physical therapy centers and mental health centers. ▪ Senior homes: healthcare properties used for the purpose of housing seniors, otherwise known as senior assisted living homes, old-age homes, or aged care. ▪ Other: other healthcare properties that do not fit in the aforementioned property types ○ Mixed use: Mixed-use buildings that lack data availability by individual property type components. ○ Other: includes parking (indoors), self-storage, and other properties that do not fit in the aforementioned property types.
Additional information	Certification schemes for net zero carbon buildings World Green Building Council released a call to action report From Thousands to Billions in May 2017 compelling business, governments and NGOs to take urgent and coordinated action towards achieving 100% net zero carbon buildings by 2050. The report set out a vision for all new buildings to be net zero carbon in operation by 2030, and all existing buildings by 2050. It also set out four key principles for best practice application of net zero. Utilising these principles, Green Building Councils have developed and adapted net zero carbon certification schemes to encourage and recognise net zero carbon leadership in their local context. As of December 2019, there are a total of 11 Green Building Council certification schemes for net zero which have been released, with several more in development. For more information, please visit the WorldGBC website.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	RE

(7.77) Did your organization complete new construction or major renovations projects designed as net zero carbon in the last three years?

Question details	
Question dependencies	This question only appears if you select "New construction or major renovation of buildings" in response to 1.15.
Change from last year	No change
Rationale	In line with TCFD recommendations, regulatory measures such as a transition to low-carbon properties may affect the financial viability of existing properties. Understanding the percentage of net zero carbon buildings provides investors with an indication of the potential impact of regulatory measures on buildings you deliver.

Response options	Select one of the following options: • Yes • No, but we plan to in the future • No, and we do not plan to in the future

Requested content	General • Indicate whether your organization completed new construction or major renovation projects designed as net zero carbon in the last three years. If you respond "Yes", you will be requested to provide details on your net zero carbon building projects in the following question. • If you respond "No", you will be requested to explain your organization's plan with regards to developing and/or constructing net zero carbon buildings in the future, or explain why you do not plan to do so.

Explanation of terms	• Net zero carbon building: In line with the World Green Building Council's definition, a building that is highly energy efficient and fully powered from on-site and/or off-site renewable energy sources. More specific definitions have been developed by some local Green Building Councils as well as in some national regulations. If you are operating in countries/areas where the definition of net zero carbon building has been defined in a legal document (e.g. building regulations and energy decrees) or by the local Green Building Council, you should apply that definition when responding to this question. Some of the examples of existing/proposed definitions include:
	  o Japan: Net Zero Energy Building (ZEB): definition proposed by Ministry of Economy, Trade and Industry - building with considerably reduced annual energy consumption by saving as much energy as possible via better heat insulation, solar shading, natural energy and high-efficiency equipment as well as creating energy (e.g., with photovoltaic power generation), while maintaining comfortable environments. The goal is to achieve net zero energy consumption by creating [renewable] energy while achieving at least 50% higher energy saving than prescribed by the Energy Saving Standard.
	  o United Kingdom: The Net Zero Carbon Buildings: A Framework Definition: developed by UK Green Building Council sets out definitions and principles around two approaches to net zero carbon – for construction and operational energy, which are of equal importance. Net zero carbon for both construction and operational energy represents the greatest level of commitment to the framework:
	  ▪ Net zero carbon – construction: when the amount of carbon emissions associated with a building's product and construction stages up to practical completion is zero or negative, through the use of offsets or the net export of on-site renewable energy;
	  ▪ Net zero carbon – operational energy: when the amount of carbon emissions associated with the building's operational energy on an annual basis is zero or negative. A net zero carbon building is highly energy efficient and powered from on-site and/or off-site renewable energy sources, with any remaining carbon balance offset.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CN, RE

(7.77.1) Provide details of new construction or major renovations projects completed in the last 3 years that were designed as net zero carbon.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.77.
Change from last year	No change
Rationale	Understanding the percentage of your organizations' new construction or major renovations projects that were designed as net zero carbon provides investors with an indication of the potential impact of regulatory measures on your business. It is acknowledged that certification schemes for net zero carbon buildings are not yet widely available, but where they are, they provide additional credibility to self-evaluated and reported statements regarding net zero carbon.
Response options	Please complete the following table. You are able to add rows by using the "Add Row" button at the bottom of the table.

Property sector	Definition(s) of net zero carbon applied	% of net zero carbon buildings in the total number of buildings completed in the last 3 years	Have any of the buildings been certified as net zero carbon?	% of buildings certified as net zero carbon in the total number of buildings completed in the last 3 years	Certification scheme(s)	Comment
Select from: • Retail • Office • Industrial • Residential • Hotel • Lodging, Leisure & Recreation • Education • Technology/Science • Healthcare • Mixed use • Other, please specify	Select all that apply: • National/local green building council standard, please specify • National/local government standard, please specify	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Select from: • Yes • No	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Select all that apply: • CaGBC Zero Carbon Building Standard – Performance • Carbon neutral certification against the National Carbon Offset Standard for Building through NABERS Energy; • Carbon neutral certification	Text field [maximum 2,400 characters]

	• International standard, please specify • Other, please specify				against the National Carbon Offset Standard for Building through Green Star – Performance Innovation Challenges • carboNZeroCertTM (NZGBC) • E+C- Label (Énergie Positive & Réduction Carbone) • EDGE Zero Carbon • Climate Positive (DGNB) • GBC Brazil Zero Energy Standard • GBCSA Net Zero/Net Positive Carbon Certification • GREENSHIP Zero (GBC Indonesia) • Indian GBC Zero Energy Standard • ILFI Living Building Challenge • ILFI Zero Carbon Certification • ILFI Zero Energy Building Certification • LEED Zero Carbon • LEED Zero Energy • NollCO2 (SwedenGBC) • Other, please specify	

[Add row]

Requested content	General • This question requests data on net zero buildings aggregated per property sector. Definition(s) of net zero carbon applied (column 2) • If your projects are located in countries/areas where the definition of a net zero carbon building has been defined in a legal document (e.g. building regulations and energy decrees) or by the local Green Building Council, you should apply that definition when responding to this question. • If your projects are located in multiple jurisdictions, different definitions of net zero may apply to them. You are requested to specify all of them in that case.

	% of net zero carbon buildings in the total number of buildings completed in the last 3 years (column 3) • Indicate the percentage that the net zero carbon buildings within this property sector contribute to the total number of buildings completed in the last 3 years. • The sum of all rows for this column should give the total proportion of the buildings completed in the last three years which are net zero carbon (i.e. a total sum of 100% will indicate that all buildings that you completed in the last three years were designed as net zero carbon) Have any of the buildings been certified as net zero carbon? (column 4) • Indicate if any of your net zero carbon buildings have been certified. If you respond "Yes", you will be requested to provide details in the following columns. • It is acknowledged that certification schemes for net zero carbon buildings are not yet widely available, but where they are, they provide additional credibility to self-evaluated and reported statements regarding net zero carbon. % of buildings certified as net zero carbon in the total number of buildings completed in the last 3 years (column 5) • This column will appear only if you selected "Yes" in column 4. • Indicate the percentage that the certified net zero carbon buildings within this property sector contribute to the total number of buildings completed in the last 3 years. • The sum of all rows for this column should give the total proportion of the buildings completed in the last three years which are certified as net zero carbon (i.e. a total sum of 100% will indicate that all buildings that you completed in the last three years were certified as net zero carbon) Comment (column 7) (optional) • You may provide additional information to contextualize your response e.g. the location of your projects and any discrepancies in the definitions of net zero carbon buildings applied in these jurisdictions.

Explanation of terms	• Property sectors (in line with 2021 GRESB Real Estate Assessment)
	  o Retail: Includes the following property types:
	  ▪ Retail, High street: retail buildings located on the high street in a particular area, usually terraced properties located in the city center or other high-traffic pedestrian zones.
	  ▪ Retail centers: shopping centers, strip malls, lifestyle centers and warehouses.
	  ▪ Restaurants/Bars: buildings used primarily for social/entertainment purposes and characterized by most of the revenue being generated from the sale of beverages or food.
	  ▪ Other: other retail properties that do not fit in the aforementioned property types.
	  o Office: Includes the following property types:
	  ▪ Corporate: low-rise, mid-rise and high-rise office properties.

	▪ Medical office: examples may include but are not limited to offices specifically used for the purpose of medical administration, secondary research or other purposes, exclusive of the property types specified for Healthcare center. ▪ Business park: a group of office properties being classified as a single financial asset and for which individual property consumption data is not available. ▪ Other: other office properties that do not fit in the aforementioned property types. o Industrial: Includes the following property types: ▪ Distribution warehouses: industrial buildings used for the purpose of storing, processing and distribution of goods to wholesalers, retailers and/or consumers. ▪ Manufacturing: industrial buildings used for the purpose of manufacturing. Otherwise known as a factory or manufacturing plant. ▪ Industrial parks: areas zoned for the purpose of industrial development, where (lightweight) industrial buildings are grouped together with offices. Examples may include, but are not limited to: industrial estates, trading estates and enterprise zones. ▪ Other: other industrial properties that do not fit in the aforementioned property types. o Residential: Includes the following property types: ▪ Residential Multi-family: multiple residential dwelling spaces contained within one building. This includes low-, mid- and high-rise multi-family residential buildings. ▪ Family homes: includes both single-family homes and multi-dwelling units not including apartment blocks. A single-family home is a separate, free-standing residential building. A multi-dwelling family home includes those such as two-flats, duplex, semi-detached, and townhouses. Synonyms include: single-family home, single-detached dwelling, detached house, single-family residence, separate house, free-standing house, townhouse, duplex, condo, semidetached, villa. ▪ Student housing: residential buildings used for the purpose of housing students, otherwise known as student apartments, student houses, student residences, student quarters, and student accommodations. ▪ Retirement living: otherwise known as retirement villages – communities comprised of people at a similar stage in life who are seeking a specific lifestyle. Retirement villages are made up of private homes and usually offer a range of shared facilities. ▪ Other: other residential properties that do not fit in the aforementioned property types. o Hotel: includes hotels, motels, youth hostels and resorts. o Lodging, leisure & recreation: indoor center used for the purpose of leisure and recreation. Examples include but not limited to: indoor arenas, fitness centers, performing arts centers, swimming centers and museums/galleries. o Education: includes schools, universities, libraries and other education properties. o Technology/Science: includes data centers, laboratory/life sciences properties and other specifically designed and equipped technology/science properties. o Healthcare: Includes the following property types:

	▪ Healthcare center: buildings used for the purpose of primary healthcare. Examples may include, but are not limited to: hospitals, clinics, physical therapy centers and mental health centers. ▪ Senior homes: healthcare properties used for the purpose of housing seniors, otherwise known as senior assisted living homes, old-age homes, or aged care. ▪ Other: other healthcare properties that do not fit in the aforementioned property types o Mixed use: Mixed-use buildings that lack data availability by individual property type components. o Other: includes parking (indoors), self-storage, and other properties that do not fit in the aforementioned property types.
Additional information	Certification schemes for net zero carbon buildings World Green Building Council released a call to action report From Thousands to Billions in May 2017 compelling business, governments and NGOs to take urgent and coordinated action towards achieving 100% net zero carbon buildings by 2050. The report set out a vision for all new buildings to be net zero carbon in operation by 2030, and all existing buildings by 2050. It also set out four key principles for best practice application of net zero. Utilising these principles, Green Building Councils have developed and adapted net zero carbon certification schemes to encourage and recognise net zero carbon leadership in their local context. As of December 2019, there are a total of 11 Green Building Council certification schemes for net zero which have been released, with several more in development. For more information, please visit the WorldGBC website.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CN, RE

(7.78) Explain your organization's plan to manage, develop or construct net zero carbon buildings, or explain why you do not plan to do so.

Question details	
Question dependencies	This question only appears if you select "No, but we plan to in the future" or "No, and we do not plan to in the future" in response to 7.76 or 7.77.
Change from last year	No change
Rationale	This question helps CDP data users to understand the anticipated pace and extent of the transition to net zero carbon buildings and barriers that organizations are experiencing in delivering and operating them.
Response options	This is an open text question with a limit of 5,000 characters. Please note that when copying from another document into the portal, formatting is not retained.

Requested content	General
	
	• Explain your organization's plan, including time-frame:
	  ○ to include net zero carbon buildings in your portfolio (for organizations involved in real estate management); OR
	  ○ to start developing or constructing net zero carbon buildings (for real estate developers and construction companies);
	• If you are not planning to start transitioning to net zero carbon buildings, explain why not.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	CN, RE

Project-based carbon credits

(7.79) Has your organization retired any project-based carbon credits within the reporting year?

Question details	
Change from last year	Minor change
Rationale	Carbon credits are used by organizations for the purposes of compliance or as voluntary carbon offsets and can support the transition to a low carbon future. Information about carbon credits

	helps data users understand the extent to which companies are meeting their climate commitments through emission reductions or offsets.
Ambition	Companies prioritize emissions reductions in their value chain, and only use high-quality carbon credits to neutralize the impact of sources of residual emissions that cannot be eliminated through value-chain emissions reductions.
Response options	Select one of the following options: • Yes • No

Requested content	General
	• "Retiring" a credit means that the emissions reductions or removals associated with the credit have been claimed for compliance requirements or voluntary goals and cannot be used again, and the exact term used may vary, e.g. retired, surrendered, claimed or used. For further information, please check the Technical Note "Retirement vs. cancellation of instruments."
	• Select "Yes" if you have retired credits during the reporting period, regardless of when you have acquired them.
	• Select "No" if you have not retired credits during the reporting period, regardless of whether you have acquired credits during the reporting period.
	• Examples of project-based carbon credits include:
	  ○ Verified Carbon Units (VCUs) generated by projects under the VCS program.
	  ○ Gold Standard Verified Emission Reductions (GSVERs) generated by projects under the Gold Standard.
	  ○ Certified Emission Reductions (CERs) generated by activities under the Clean Development Mechanism (CDM).

Explanation of terms	• Cancellation: The permanent removal of a carbon credit in an electronic registry without claiming the associated emission reductions or removals towards any voluntary or mandatory targets or other purposes. Cancellation may include the following purposes: compensating for reversals; compensation for any previous excess issuance; administrative cancellation for the purpose of re-issuing carbon credits for the same emission reductions or removals under a different carbon-crediting program. Only one single use should be associated with each cancellation and the use should be clearly specified. (ICVCM) • Retirement: The permanent removal of a carbon credit in a registry for the purpose of claiming the associated emission reductions or removals towards compliance requirements or voluntary goals. Only one single use should be associated with each retirement and the use should be clearly specified. (ICVCM)

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All

(7.79.1) Provide details of the project-based carbon credits retired by your organization in the reporting year.

Question details	
Question dependencies	This question only appears if you select "Yes" in response to 7.79.
Change from last year	Modified question
Rationale	Carbon credits can be originated from a variety of projects and are verified to a number of standards. Data users are interested in learning about the quality of projects, scope of project types, the objectives of organizations who have canceled carbon credits and the extent to which the credits are used to achieve these objectives.
Ambition	Carbon credits are issued by a program which adheres to best practice and addresses issues such as additionality, leakage and reversal.
Response options	

1	2	3	4	5	6	7
Project type	Type of mitigation activity	Project description	Credits retired by your organization from this project in the reporting year (metric tons CO_2e)	Purpose of retirement	Are you able to report the vintage of the credits at retirement?	Vintage of credits at retirement
Select from: [listed below]	Select from: • Emissions reduction • Carbon removal	Text field [maximum 2,500 characters]	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places and no commas]	Select from: • Compliance with a carbon pricing system • Voluntary offsetting • Other, please specify	Select from • Yes • No	Numerical field [enter a number between 1900-2024]

8	9	10	11	12	13	14
Were these credits issued to or purchased by your organization?	Carbon-crediting program by which the credits were issued	Methods the program uses to assess additionality for this project	Approaches by which the selected program requires this project to address reversal risk	Potential sources of leakage the selected program requires this project to have assessed	Provide details of other issues the selected program requires projects to address	Please explain

Select from: • Issued • Purchased	Select from: [Listed below]	Select all that apply: • Consideration of legal requirements • Investment analysis • Barrier analysis • Market penetration assessment • Standardized Approaches • Other, please specify • Not assessed	Select all that apply: • Monitoring and compensation • Temporary crediting • Other, please specify • No requirements • No risk of reversal	Select all that apply: • Upstream/downstream emissions • Activity-shifting • Market leakage • Ecological leakage • Other, please specify • Not assessed	Text field [maximum 2,500 characters]	Text field [maximum 2,500 characters]

[Add row]

Project Type (column 1)	
• Afforestation • Agriculture • Agroforestry • Biochar • Bioenergy with carbon capture and storage (BECCS) • Biomass energy • Cement • Coal mine/bed methane • Clean cookstove distribution • Community projects • Direct air capture (DAC) • Energy distribution • Energy efficiency: households • Energy efficiency: industry • Energy efficiency: own generation • Energy efficiency: service • Energy efficiency: supply side • Enhanced weathering and ocean alkalization • Forest ecosystem restoration • Fossil fuel switch	• Fugitive • Geothermal • HFCs • Hydro • Landfill gas • Landscape projects • Natural regeneration • Mangrove protection and restoration • Methane avoidance • Mixed renewables • N2O • Ocean fertilization • Peatland protection and restoration • PFCs and SF6 • Reforestation • Soil carbon sequestration • Solar • Tidal • Transport • Waste management • Wind • Other, please specify

Carbon-crediting program by which the credits were issued (column 9)	
• Alberta TIER Emission Offset system • ACR (American Carbon Registry) • California Air Resources Board Compliance Offset Program • CAR (The Climate Action Reserve) • CCBS (developed by the Climate, Community and Biodiversity Alliance, CCBA) • CDM (Clean Development Mechanism) • Cercarbono • Emissions Reduction Fund of the Australian Government	• JI (Joint Implementation) • Plan Vivo • Puro.earth • REDD+ • Social carbon • TREES (The REDD+ Environmental Excellence Standard) • T-COP (Thailand Carbon Offsetting Program) • VCS/Verra (Verified Carbon Standard) • VER+ (TÜV SÜD standard)

• Gold Standard • ERS – Ecosystem Restoration Standard • Isometric • JCM (Joint Crediting Mechanism) • J-credit (offsets)	• Wilder carbon • Not issued by a program • Other private carbon crediting program, please specify • Other regulatory carbon crediting program, please specify

Requested content	General
	• See CDP's Position Paper on Carbon Credits for more detail on the credible use of carbon credits and the principles of effective disclosure of them.
	
	Project type (column 1)
	• You will have the opportunity to provide more details of the project in column 3 "Project description".
	
	Type of mitigation activity (column 2)
	• Select whether the project leads to an:
	  ○ Emissions reduction i.e., an activity that reduces anthropogenic emissions of a greenhouse gas relative to its emissions in the activity's baseline scenario (adapted from ICVCM); or
	  ○ Carbon removal i.e., an anthropogenic activity that removes carbon dioxide (CO_2) from the atmosphere and ensures its long-term storage in terrestrial, geological, or ocean reservoirs, or in long-lasting products (adapted from UNFCCC).
	
	Project description (column 3)
	• Briefly describe the project from which the credits retired in the reporting year originated, including:
	  ○ The project's name and ID as specified by the carbon-crediting program it is a part of;
	  ○ The methodology used by the project;
	  ○ The geographic location of the project; and
	  ○ An explanation of how the project leads to GHG emissions reductions or removals (as relevant to your response in column 2).
	
	Credits retired by your organization from this project in the reporting year (metric tons CO_2e) (column 4)
	• The figure reported should be the credits retired by your organization during the reporting year from the project described in column 3, irrespective of whether the credits were issued to or purchased by your organization.
	• "Retiring" a credit means that the emissions reductions or removals associated with the credit have been claimed for compliance requirements or voluntary goals and cannot be used again. For further information, please check the Technical Note "Retirement vs. cancellation of instruments."
	
	Purpose of retirement (column 5)
	• Indicate whether the credits were retired in the reporting year to comply with a carbon pricing system (e.g. an Emissions Trading Scheme as reported in 3.5.1 / 3.5.2), or whether the credits were canceled as part of your organization's strategy for voluntary offsetting.

	• If disclosing as a financial services company, "Other, please specify" can be used by banks and asset managers to solicit information on the approach to offsets to meet commitments under the Net-Zero Banking Alliance and the Net Zero Asset Managers initiative respectively, e.g. if the offsets are used to balance residuals, long-term, additional and certified, and only used where no alternatives to eliminate emissions exist.
	
	Are you able to report the vintage of the credits at retirement? (column 6)
	• Indicate whether you can provide a vintage for the retired credits. Refer to the Explanation of Terms for more information.
	• Select "Yes" even if you can only provide a vintage for a proportion of the credits.
	
	Vintage of credits at retirement (column 7)
	• This column is only presented if you select "Yes" in column 6 "Are you able to report the vintage of the credits at retirement?".
	• If there is more than one vintage for the credits you have retired from this project, enter the oldest year.
	
	Were these credits issued to or purchased by your organization? (column 8)
	• Issued - Select this option if you are the organization to which the credits were originally issued as a project participant.
	• Purchased - Select this option if you bought the credits from another organization.
	
	Carbon-crediting program by which the credits were issued (column 9)
	• When selecting one of the "Other…" options, please refer to the following definitions:
	  o Private carbon crediting program: A carbon crediting program which has been created by any private entity, such as an NGO, private company, or university; and
	  o Regulatory carbon crediting program: A carbon crediting program which has been created by a government, regulatory agency, or international governmental organization.
	• If you select "Not issued by a program", explain in column 14 "Details of credits retired" who has issued the credits.
	
	Methods the program uses to assess additionality for this project (column 10)
	• This column is only presented if you select any option other than "Not issued by a program" in column 9 "Carbon-crediting program by which the credits were issued".
	• Additionality is demonstrated if the mitigation activity would not have occurred in the absence of a market for offset credits and associated revenues.
	• Select the methods the standard selected in column 9 "Carbon-crediting program by which the credits were issued" uses to assess the additionality of the project (sources and examples adapted from the ICVCM):
	  o Consideration of legal requirements – can be used to demonstrate that the project would not have been implemented due to existing legal requirements;
	  o Investment analysis – can be used to demonstrate that the project would not have been economically attractive without carbon credit revenues;
	  o Barrier analysis – can be used to demonstrate that the project faced barriers (e.g., financial barriers, institutional barriers, information barriers, or other barriers specific to the project) not faced by alternatives to the project, and that the expectation of carbon credit revenues was decisive for overcoming these barriers;
	  o Market penetration assessment (also referred to as common practice analysis) – can be used to demonstrate that the project activity was not already common practice in the relevant geographical area; and
	  o Standardized Approaches – can deem the project automatically additional if it meets certain conditions. Organizations selecting this option should state in column

13 “Provide details of other issues the selected program requires projects to address” the eligibility criteria and/or performance benchmarks the standard requires the project to meet to be considered additional.

- If you select “Other, please specify”, provide further details in column 13 “Provide details of other issues the selected program requires projects to address”.
- Select “Not assessed” if the standard does not assess whether the project demonstrates additionality.

Approaches by which the selected program requires this project to address reversal risk (column 11)

- This column is only presented if you select any option other than “Not issued by a program” in column 9 “Carbon-crediting program by which the credits were issued”.
- Reversal risk refers to the risk of non-permanence of the mitigation activity.
- Select the methods the standard selected in column 9 “Carbon-crediting program by which the credits were issued” uses to address reversal risk (sources and examples adapted from the ICVCM):
    - Monitoring and compensation – where the project aims to guarantee carbon storage for a finite period through long-term monitoring and compensation conditions on potential reversals. For example, unavoidable reversals could be compensated for if the project contributes to a pooled buffer reserve of credits which are retired in the case of an unavoidable reversal event; and
    - Temporary crediting – where the standard issues temporarily valid credits to the project in relation to verified ex-post emission reductions or removals. When a credit expires at the end of its validity period and has been retired by a purchaser, the credit purchaser is obligated to replace it with a permanent credit. Temporary crediting aims to guarantee compensation for reversals indefinitely, because credit purchasers need to cover their obligations once a carbon credit expires.
- The option “No risk of reversal” should only be selected for projects where there is no carbon storage and thus no risk of reversal (e.g., renewable energy projects), or where there is no conceivable way for the stored GHGs to be released into the atmosphere. Organizations selecting this option should provide a justification of why the project is considered to have no risk of reversal in column 13 “Provide details of other issues the selected program requires projects to address”.
- If you select “Other, please specify”, provide further details in column 13 “Provide details of other issues the selected program requires projects to address”.

Potential sources of leakage the selected program requires this project to have assessed (column 12)

- This column is only presented if you select any option other than “Not issued by a program” in column 9 “Credits issued by which carbon crediting program”.
- Leakage refers to any impact of the project on emissions outside of the project activity – see Explanation of Terms for more information.
- Select the potential sources of leakage emissions the standard selected in column 9 “Carbon-crediting program by which the credits were issued” requires the project to assess (sources and examples adapted from the ICVCM):
    - Upstream/downstream emissions – direct impacts of the project on upstream or downstream emissions or removals. E.g., emissions associated with the upstream production of fuel used by the project;
    - Activity-shifting – emissions shifting to locations not targeted or to emissions not monitored by the project. E.g., the displacement of agricultural activity from land that is afforested;

	○ Market leakage – emissions occurring elsewhere through an impact on the supply or demand for an emissions-intensive product or service. E.g., rebound effects from energy efficiency measures, where the expected benefit of improved efficiency is reduced due to behavioral or other responses; and ○ Ecological leakage – emissions occurring indirectly in areas which are hydrologically connected to the project area. E.g., emissions from wetland soils if water levels are lowered due to the project. • If you select "Other, please specify" provide further details in column 13. • Select "Not assessed" if the standard does not require the project to assess leakage emissions. Provide details of other issues the selected program requires projects to address (column 13) • This column is only presented if you select any option other than "Not issued by a program" in column 9 "Carbon-crediting program by which the credits were issued". • Provide details of how the standard requires the project to minimize and, where possible, avoid negative environmental, economic, and social impacts. Please explain (column 14) • Specify: ○ The serial numbers of the credits retired from this project, and the retirement date; ○ Whether corresponding adjustments have been issued for these carbon credits or not, and if so, details of them; and ○ The average price paid for credits from this project. • Describe which business team has responsibility for carbon credit purchases. Include details of how this project was selected and any due diligence done as part of the process.
Explanation of terms	• Corresponding adjustments: The process by which carbon credits purchased from parties of the Paris Agreement for "other international mitigation purchases" are "uncounted" by the party that agreed to transfer it. This is the main safeguard established under the Paris Agreement to prevent double claiming of carbon credits, outlined in Article 6.2. For example, if a company purchases carbon credits from an overseas country, the company now 'owns' the emissions reduction and the overseas party applies the corresponding adjustment to its own inventory. • Vintage: The year in which the mitigation activity took place. For emissions reductions or removals, this should be the year in which the emissions reduction/removal took place. Because the verification process can take two to three years from project inception, projects/programs may generate credits for already-reduced emissions (adapted from the ICVCM). • Additionality (carbon credits): a project is additional if it would not have occurred in the absence of the incentives from the carbon credit mechanism, taking into account all relevant national policies, including legislation, and representing mitigation that exceeds any mitigation that is required by law or regulation, and taking a conservative approach that avoids locking in levels of emissions, technologies or carbon-intensive practices incompatible with the Paris Agreement goals (adapted from the UNFCCC). • Reversal risk: refers to the risk of non-permanence of the mitigation activity. • Emissions leakage: also known as "carbon leakage", refers to the phenomenon through which efforts to reduce emissions in one jurisdiction or sector simply shift emissions to another jurisdiction or sector where they remain uncontrolled or uncounted (Jenkins et al, 2009).
Additional information	The Integrity Council for the Voluntary Carbon Market (ICVCM) The Integrity Council for the Voluntary Carbon Market (ICVCM) is an independent governance body aiming to ensure the voluntary carbon market accelerates a just transition to

	1.5ºC. Their Core Carbon Principles (CCPs) and Assessment Framework (AF) have set new threshold standards for high-quality carbon credits and define which carbon-crediting programs and methodology types are CCP-eligible. Paris Agreement Article 6.4 Mechanism Article 4 of Paragraph 6 of the Paris Agreement establishes "a mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development". This mechanism will take the form a new international carbon market, which will replace the Clean Development Mechanism (CDM). Once the mechanism is operational, it is expected to be the best-practice standard for carbon markets.

Tags		
Authority Type	Capital Markets	
Environmental Issue (Theme)	Question level	CC
Questionnaire Sector	Question level	All