



Guidance for companies reporting on climate change on behalf of investors & supply chain members 2013

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Version Control

Version Nr.	Revision Date	Released	Revision Summary
0.1	13 December 2012	December 2012	This advance version of the guidance has been prepared to allow companies to see the full format and requirements of the questionnaire in advance of the disclosure period in February 2013. However, some features of the Online Response System are still under development and therefore are subject to change. Where this is the case, it has been indicated in this document.
0.2	28 January 2013	January 2013	This is the final version of the guidance prepared for the disclosure period of February 2013.

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Introduction to the Guidance 2013

Introduction to this document

This document should be read by anyone responding to CDP in 2013, regardless of whether you have responded to CDP before. It contains important information about this year's disclosure process and key sources of information to assist in the preparation of the CDP response in 2013.

If you are unfamiliar with using our Online Response System please refer to the Guide to the ORS – see <https://www.cdproject.net/guidance>.

If you have not completed a CDP information request before or you would like more information on the CDP process more broadly, please see our guidance for first time responders (<https://www.cdproject.net/Documents/Guidance/2013/guidance-for-first-time-responders-to-CDP.pdf>).

This document has been prepared for companies responding to requests for information on climate change on behalf of investors and CDP's supply chain members. Separate guidance has been prepared to assist companies that are responding to requests for information on water and forests – see <https://www.cdproject.net/guidance>.

What has changed for 2013?

As in 2012, CDP has followed a minimum change approach for 2013. The main guidance format remains the same and no new sector modules are being introduced for this disclosure period. Changes to the questions in the core module are limited to:

- o Question 2.3 has been amended (along with guidance) to allow companies to separate out their methods of engagement with policy makers under direct and indirect activities.
- o Questions 8.2b, c, d and 8.3b, c, d have been removed to reflect an alignment on financial control boundary definition between the GHG Protocol and Climate Disclosure Standards Board. Companies using the Climate Change Reporting Framework (CCRF) should select financial control as their boundary in question 8.1, report their Scope 1 and Scope 2 emissions accordingly in questions 8.2 and 8.3, and then provide their CCRF breakdown in a new option made available in questions 9.2 and 10.2.
- o An additional question for external verification or assurance, question 8.6c, has been included in 2013 to capture the activities of companies using Continuous Emissions Monitoring Systems (CEMS) under regulatory regimes.
- o Amendments have been made to questions 9.1a and 10.1a to include multinational regions that can be selected for the country breakdown. The option to select "Other" has been removed to avoid the reporting of unspecified regional breakdowns.
- o Question 9.2b has been amended to ask companies to report latitude and longitude coordinates in their facility breakdown information for Scope 1 emissions.



- o To align with the emerging approach for green energy accounting by the GHG Protocol, Section 11 from the 2012 questionnaire on Scope 2 Contractual Emissions has been removed and two columns have been added to question 10.1a for i) Purchased and consumed electricity, heat, steam or cooling, and ii) Purchased and consumed low carbon electricity, heat, steam or cooling. A new question, 11.4, has been added in the section on Energy to allow disclosure of information related to electricity, heat, steam or cooling amounts accounted at a low carbon emissions factor.
- o Section 14 (previously section 15) on Scope 3 emissions has been amended to align with the GHG Protocol Scope 3 Standard, published in December 2011.

Deadline for responses

The start and finish times differ depending on the request that you are responding to.

The request for information on behalf of investors will be issued in February 2013 and the closing date for submissions is May 30 2013.

The request for information on behalf of CDP's supply chain members will be issued in April 2013 and the closing date for submissions is July 31 2013.

If you are responding to both requests you can begin your response as soon as the modules become available but you must submit your response prepared for investors in advance of submitting your response to supply chain members.

Response changes

Amendments to responses submitted prior to the deadline

For companies responding to the request for information from investors, responses submitted prior to the disclosure deadline of May 30 may be amended by the company and resubmitted by this date. For companies also completing the Supply Chain module, this module can be resubmitted up to the July 31 deadline. If you need to make amendments to your submitted response prior to the above deadlines, please email respond@cdproject.net.

Amendments to responses after the response deadline

Amendments to responses after the above deadlines can be made only by CDP staff and may incur an administration fee. CDP will not accept amendments to all questions. Therefore, if you discover an error in your response after the above deadlines, please contact CDP (email respond@cdproject.net) to investigate whether it is possible to amend the error. Please note that these changes may not be reflected in the CDP annual reports and that CDP reserves the right to use the information already submitted.

Scoring

The scoring methodology for 2013 is provided on the CDP website. In addition, question level guidance includes key information on the scoring approach. The principles of scoring are detailed in the "Guidance for first-time responders" document (<https://www.cdproject.net/Documents/Guidance/2013/guidance-for-first-time-responders-to-CDP.pdf>).

Other guidance documents

Separate guidance has been prepared to assist companies in responding to the four sector modules (Oil & Gas, Electric Utilities, Auto & Auto Component Manufacturers & ICT) and those responding to the Supply Chain module (as past of the request for information from CDP's supply chain members). All are available at: <https://www.cdproject.net/guidance>.



Assistance in responding to CDP

In addition to the guidance listed at the beginning of this document, there are a number of other sources of assistance for companies when preparing their response to CDP. Full details are available at <https://www.cdproject.net/guidance>; some of the main resources are briefly described below.

Discloser Roadmap

New for 2013, a discloser roadmap has been prepared to assist companies with progressing their disclosure.

Workshops and webinars

CDP runs a series of workshops and has webinars available on the website to assist companies with responding to CDP.

Problem solving web resource

The CDP system is generally easy to use, however you can find some common troubleshooting tips on our website. This web page will be constantly updated during the disclosure cycle.

Would you like your CDP response checked?

Once your company has completed its response you can have this checked prior to final submission. Response Check is a 'checking' service conducted prior to final submission, designed to ensure that responses have been filled out suitably and are as complete as possible. The Response Check service is delivered by CDP's accredited consultancy partners who have received training from CDP on the Response Check methodology and process. To find out more visit the CDP Response Check [web page](#).

CDP Reporter Services Membership

Reporter Services Membership is designed to empower your organization to reduce emissions and improve business performance, supporting your journey through compliance to operational efficiency and ultimately to strategic advantage. The package includes:

- Dedicated account manager to guide you through the disclosure process, answer your questions, and support your use of the analytics software to ensure you get the full value from the membership.
- Comprehensive online analytics tool (based on SAP software) that gives you complete access to CDP data to enable fast and effective benchmarking and analysis to identify best practice in reporting and action.
- Series of expert webinars, newsletters and events with exclusive networking and marketing/profile opportunities.
- Response check from a CDP consultancy partner prior to submission

Operational Partners

CDP is working with leading service and software providers that can support companies in the collection, measurement, reporting and management of their climate and sustainability data. They can also support companies in developing and implementing an appropriate climate change strategy to reduce their environmental impact and exposure. All CDP operational partners have been selected based on partner, tool and service criteria.

- **CDP Calculation Partnerships:** CDP accredited sustainability software tools have been tested by the Greenhouse Gas Management Institute and are compatible with the Greenhouse Gas Protocol (GHG Protocol). The CDP carbon calculation partners can offer valuable support in switching from complex Excel spreadsheets to company wide, integrated management systems. This transformation will allow companies to identify efficiencies throughout the data gathering process and effectively increase data quality through automation and appropriate information architecture. To find out more visit the CDP carbon calculation partnerships [web page](#).



- **CDP Consultancy Partnerships:** CDP is working with a number of consultancy partners who demonstrate a commitment to working with CDP to encourage high quality disclosure and action on climate change. Partners can support companies with the technical expertise to establish and implement an appropriate climate change or sustainability strategy. CDP consultancy partners have a proven track record and hold a successful portfolio of large clients. To find out more visit the CDP consultancy partnerships [web page](#).
- **CDP Verification Partnerships:** The verification services provided by these partner organizations will provide companies with third party certification, verification and assurance of climate or sustainability data. CDP encourages the verification / assurance of information disclosed to us. Overall, third party verification and assurance ensures the disclosure of accurate, comparable data, which should be the goal of all reporting companies. CDP verification partners' services are accredited under internationally recognized standards, including relevant ISO or ISAE standards and are accredited to perform certification under schemes such as the EU ETS and Western Climate Initiative. Alternatively partners belong to the International Federation of Accountants Code of Ethics for Professional Accountants amongst other governing bodies. To find out more visit the CDP verification partnerships [web page](#).
- **CDP Carbon Reduction Partnerships:** The carbon reduction technologies and services are delivered by CDP partner organizations that have a track record of achieving carbon emissions reductions across sectors. The partnership program complements CDP's Carbon Action initiative - an investor led initiative to accelerate company action on carbon reduction activities which deliver a satisfactory return on investment. To find out more visit the CDP carbon reduction partnerships [web page](#).
- **CDP Education and Training Partnerships:** CDP encourages global organizations to undertake high quality carbon management training to improve employee awareness and understanding of how climate change affects their organization. CDP's accredited partners provide a comprehensive array of training programs for organizations to improve the quality of their CDP response. To find out more visit the CDP education and training partnerships [web page](#).

Contact us

If you are not able to resolve your query using any of the resources listed above, please contact us at respond@cdproject.net.

Providing feedback to CDP

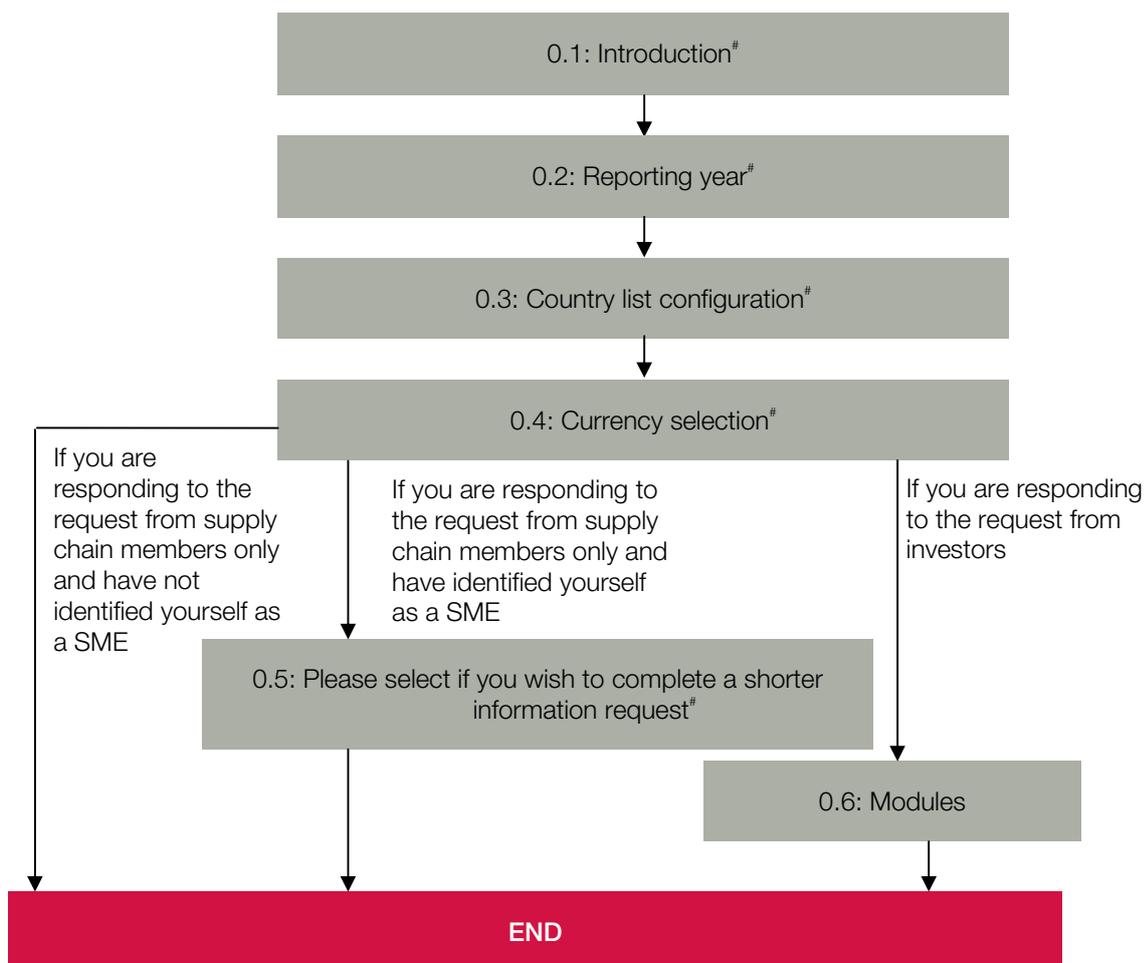
As in 2012, an opportunity will be given to provide feedback to CDP through a short online survey. A link to this survey will be sent to you by e-mail after you have submitted your response. Any feedback given will not be associated with your response and will not be shared publicly.

Introduction Module Guidance

0. Introduction page

Question Pathway

The following questions are shown on the Introduction page.



Notes: #Questions included in the SME questionnaire

General Guidance

The information entered on the introduction page determines key aspects of the questionnaire. This is the reason why, until you have successfully saved the introduction page at least once, you will not see the entire set of questions.

If you are responding to the request for information from supply chain members only you may have been given the option of answering a shortened information request because you have identified that you meet the criteria for Small and Medium Sized Enterprises (SMEs) in the ORS portal. Further details are provided in the guidance to question 0.5.

Key Changes from 2012

There are no question changes on this page.

Pre-population

If you responded to CDP last year, questions 0.1, 0.3 and 0.4 on this page are eligible for pre-population. To take advantage of this function, click “copy from last year” prior to entering any data on the page.

SME version

Questions 0.1, 0.2, 0.3, 0.4, and 0.5 on this page are included in the SME questionnaire.

Specific Question Guidance

Q0.1: Introduction

Please give a general description and introduction to your organization.

You are not required to give an introduction to your organization, but please do so if you wish.

Q0.2: Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

This reporting period should be applied to your answers for the entire information request unless the facility is provided to specify other reporting periods, for example in the sector specific modules. At this point CDP does not require companies to align their reporting year with their fiscal year. When organizations are reporting emissions intensity using a financial metric, however, the emissions information and the financial information provided should align with the reporting year defined in response to this question.

We request data for more than one reporting period for the emission accounting questions on pages 8, 9 and 10 of the questionnaire. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. If this applies to you, please give the dates of those reporting periods here. All years need to be entered in reverse order, with the current year first. This will enable you to enter multiple years of data when you reach questions 8, 9 and 10.

SMEs are not requested to provide three years of historical data, in order to reduce the workload associated with reporting for this particular group of companies. However, if an SME has the data and would like to provide it, they should follow the instructions given above. They will then be presented with questions asking for their total Scope 1 and total Scope 2 emissions and the methodology that they have used to estimate these emissions for the years that they enter in question 0.2.

You may also choose to restate data previously supplied to CDP, for example to ensure that your historical data reflects your current organizational boundary. If you wish to do this you should enter the reporting



period for the restatement here. When you arrive at the relevant pages in the questionnaire (pages 8, 9 and 10 for the year(s) for which you wish to restate data), please use the further information field to identify that this is a restatement and the reason for it.

If there is a change in your reporting year from years previously supplied to CDP (e.g. from reporting calendar year to financial year, or vice versa) so that the new reporting year overlaps with last year's reporting year, you should note it in the further information field at the bottom of the Introduction page.

If multiple years of data are provided, only data pertaining to the most recent reporting year will be scored.

Please enter dates in the following format: day(DD)/month(MM)/year(YYYY) in full, i.e. 31/01/2001. Work backwards from the most recent reporting year.

Companies are recommended to provide a year for which they have complete data if possible. However, if you do not have data for the entirety of your reporting year, you have the following options:

1. Extrapolate your data to cover the entire reporting year. This potential source of inaccuracy can be logged in answer to question 8.5; or
2. Leave the questions requesting emissions data blank.

Q0.3: Country list configuration

Please select the countries for which you will be supplying data.

Select all countries in which you operate from the drop down menu provided.

If you are responding to the Electric Utilities module, these countries will be taken forward to structure the pages in this sector module. If you delete a country from this question the country will be removed from the sector module. Furthermore, if you delete the country after having introduced data for that country, the associated data will also be deleted.

The values under "Select country" include a list of countries, "Rest of World", "International Air Space" and "International Waters" but no "Other" value.

Q0.4: Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response (questions 3.3b and 12.2) should be in this currency.

For example, if you select USD(\$) here, when providing your financial intensity metric in response to question 12.2, you should provide it as metric tonnes CO₂e per US\$.

Q0.5: Please select if you wish to complete a shorter information request

If you are responding to the request for information from supply chain members only you may have been given the option of answering a shortened information request because you have identified that you meet the criteria for Small and Medium Sized Enterprises (SMEs) in the ORS portal. They are a sub set of the full list of questions and they retain their numbering from the full questionnaire. Hence, the question numbers presented in the SME questionnaire will not necessarily be fully sequential. Companies that are eligible for the SME questionnaire are welcome to show their leadership in the field of climate change reporting by answering the full information request. If this is the case, please select "No" here.

Q0.6: Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors, companies in the oil and gas industry and companies in the information technology and telecommunications sectors should complete supplementary questions in addition to the core modules.

These modules are only for companies with business activities in these sectors. They should not be answered by companies solely on the basis that they use electricity, automobiles, oil & gas or ICT hardware/services in their work.

Businesses in these sectors should answer questions 1-14 for all businesses within their consolidated boundary and provide information specific to businesses in those sectors in answer to the additional questions.

Please note that the sector modules will not appear until you save the introduction page in the ORS. The presentation of these modules depends on your company's classification according to the Global Industry Classification Standard (GICS). Those that apply are:

GICS code (at sub-industry or parent sector level)	Sector modules
<ul style="list-style-type: none"> • 55101010 Electric Utilities 	Electric Utilities module
<ul style="list-style-type: none"> • 55103010 Multi-Utilities 	
<ul style="list-style-type: none"> • 10102020 Oil & Gas Exploration & Production 	Oil & Gas module
<ul style="list-style-type: none"> • 10102010 Integrated Oil & Gas 	
<ul style="list-style-type: none"> • 10102030 Oil & Gas Refining & Marketing 	
<ul style="list-style-type: none"> • 25101010 Auto Parts & Equipment 	Auto module
<ul style="list-style-type: none"> • 25102010 Automobile Manufacturers 	
<ul style="list-style-type: none"> • 50 Telecommunication Services 	ICT module
<ul style="list-style-type: none"> • 45 Information Technology 	

You can see your GICS classification on your Profile page. If you want to query your classification, please email CDP at respond@cdproject.net.

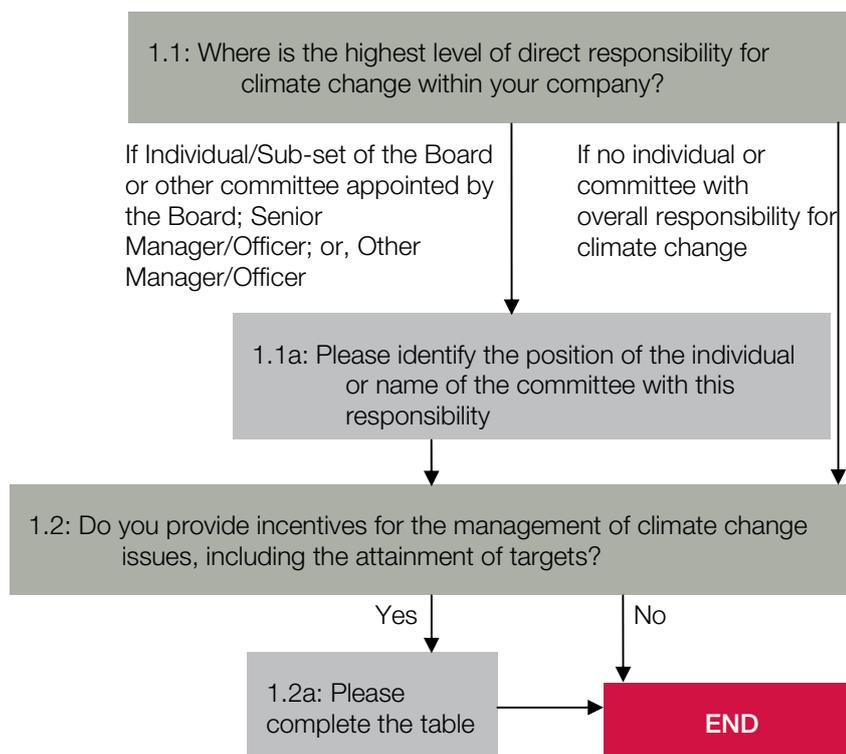
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please tick to select the module below. If you wish to view the questions first, please see <https://www.cdproject.net/Docs/Investor-CDP-2013-Sector-Modules.pdf>.

Management Module Guidance

1. Governance page

Question Pathway

The following questions are shown on the Governance page.



General Guidance

This page is intended to capture the governance structure of your company with regard to climate change, including how individuals take responsibility for climate change risks, opportunities and actions and how rewards are associated with such actions. In the context of this section the Board (also known as “the Board of Directors” or “the Executive Board”) is the group of persons appointed with joint responsibility for directing and overseeing the affairs of the company. All responses made in this section should be based on the most up to date information available within the reporting period.

Key Changes from 2012

There are no question changes on this page.

The performance scoring methodology for question 1.2a has been revised.

Pre-population

If you responded to CDP last year, questions 1.1, 1.1a, 1.2 and 1.2a, on this page are eligible for pre-population. To take advantage of this function, click “copy from last year” prior to entering any data on the page.

SME version

None of the questions on this page are included in the SME questionnaire.

Specific Question Guidance

Q.1.1: Where is the highest level of direct responsibility for climate change within your company?

In response to this question please select the appropriate person or group from the following options:

- Individual/Sub-set of the Board or other committee appointed by the Board;
- Senior Manager/Officer;
 - i.e. the highest person in the organization with direct responsibility for climate change is on the senior management team, but not on the Board
- Other Manager/Officer;
 - i.e. the highest person in the organization with direct responsibility for climate change is a manager/officer that is not on the senior management team or the Board; for example, this could be a team/discipline leader
- No individual or committee with overall responsibility for climate change.

Please note that this question asks for the person with direct responsibility. In practical terms this is the person that would be at the top of the chain specifically managing information on climate change. The CEO is responsible for everything in the company and therefore will ultimately be responsible for climate change, however this question is looking to identify specific responsibility on climate change related issues. Whilst this may be the CEO it is not necessarily the case.

Your response to this question drives question 1.1a below.

- **Disclosure Score:** Points are awarded for selection of a drop down menu option.
- **Performance Score:** There are no performance points associated with this question, but performance points for 1.1a are dependent on the selection made at 1.1.

Q1.1a: Please identify the position of the individual or name of the committee with this responsibility
This question is only presented if you have selected one of the following options in response to question 1.1: Individual/Sub-set of the Board or other committee appointed by the Board; Senior Manager/Officer; or Other Manager/Officer.

Please use the text box to identify (i) the job title of the individual or name of the committee and (ii) a description of their/its position in the corporate structure.

- **Disclosure Score:** If question 1.1a is presented, both the individual/committee and their position in the corporate structure must be given to score maximum disclosure points.
- **Performance Score:** Performance points are only available if question 1.1a is presented. More performance points are awarded for answers that show that responsibility is held at board or senior manager/officer level as demonstrated by the drop down selection (question 1.1) and supporting narrative (question 1.1a).

A company will be scored zero out of the total number of disclosure and performance points available where the narrative does not support the drop down selection at 1.1

Q1.2: Do you provide incentives for the management of climate change issues, including the attainment of targets?

Please respond to this question by selecting “yes” or “no” from the drop down menu. Note that incentives can be positive (i.e. give people something) or negative (prevent access to something). Selecting “yes” drives question 1.2a below.

- **Disclosure Score:** Points are awarded for selection of a drop down menu option.
- **Performance Score:** There are no performance points associated with this question, but performance points for 1.2a are dependent on the selection made at 1.2.

Q1.2a: Please complete the table

This question only appears if you answer “yes” to question 1.2 (see above).

The employee (selected in column 1) should be matched to the incentive type and indicator (columns 2 and 3). Entries in columns 1 and 2 should be selected from the lists shown in the table below. Column 3 is a text box with a character limit of 2,400 and should describe the achievement that is being incentivized.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator
Select from: Board chairman Board/Executive board Director on board Corporate executive team Chief Executive Officer (CEO) Chief Operating Officer (COO) Executive officer Management group Business unit managers	Select from: Monetary reward Recognition (non-monetary) Other non-monetary reward	Please describe an incentivized performance indicator and describe how it is linked to climate change. This is an open text field with a character limit of 2,400 characters.

Energy managers Environment/Sustainability managers Facilities managers Process operation managers Public affairs managers Risk managers All employees Other, please specify		
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Multiple incentives can be selected using the “Add Row” button to the bottom right of the table.

Examples of incentives types include:

- Monetary: a bonus or some form of financial remuneration;
- Recognition (non-monetary): employee award (e.g. employee of the year) or career progression scheme, but not tied directly to any form of financial remuneration;
- Other non-monetary reward: including increased holiday allowances, special assignment, parking allocations etc.

Examples of incentivized performance indicators include:

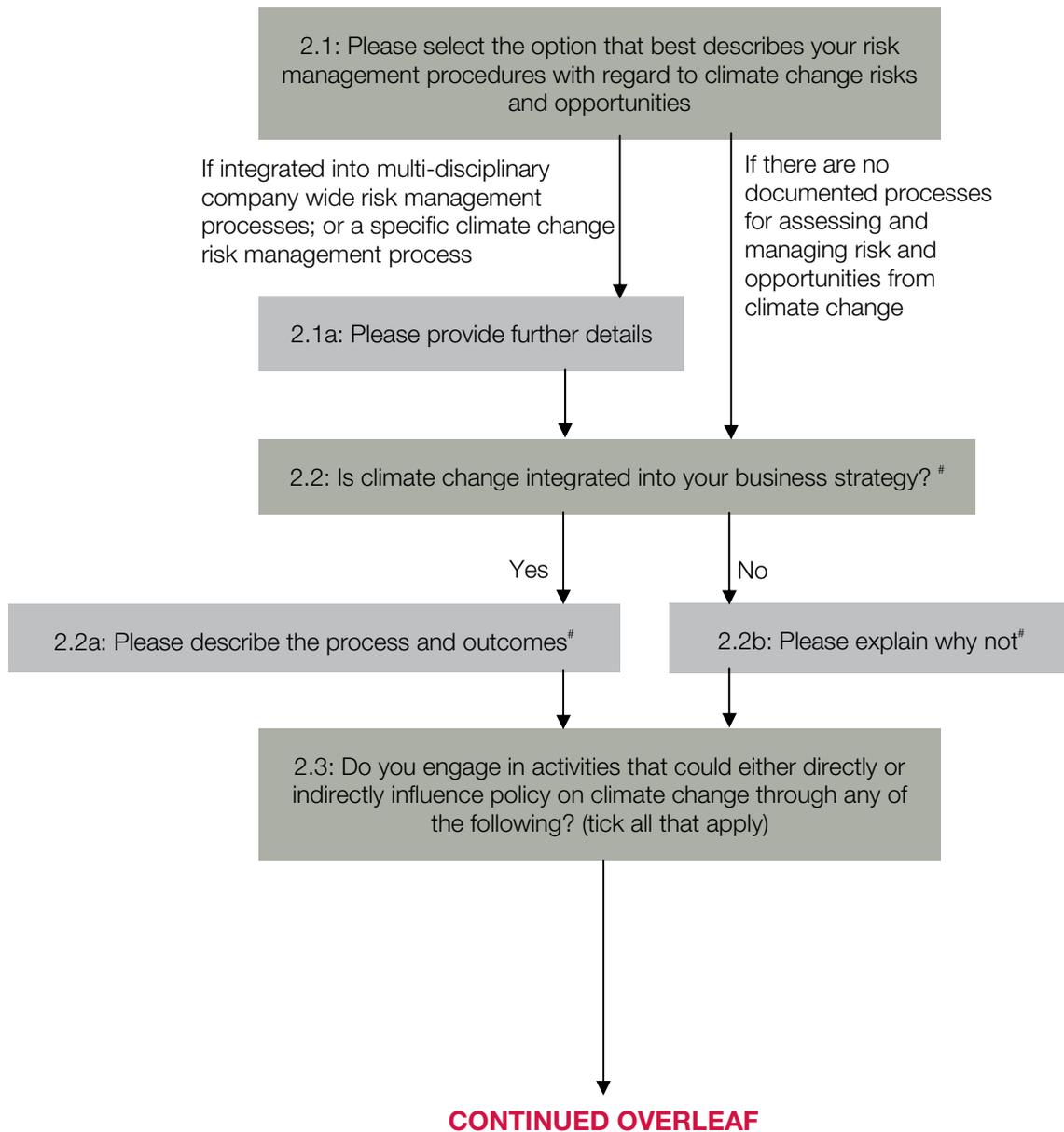
- Meeting emission reduction targets;
 - Communicating climate change issues;
 - Generating business related to climate change services;
 - Sales of low carbon products, etc.
-
- Disclosure Score: All three columns need to be completed for one or more rows to score disclosure points.
 - Performance Score: All three columns must be completed for one or more rows to score performance points. Maximum points are available for monetary incentives, performance indicators which incentivize meeting emissions reduction or energy reduction targets, and where the following individuals/groups are entitled to benefit;
 - Board chairman
 - Board/Executive board
 - Director on board
 - Corporate executive team
 - Chief Executive Officer (CEO)
 - Chief Operating Officer (COO)
 - All employees

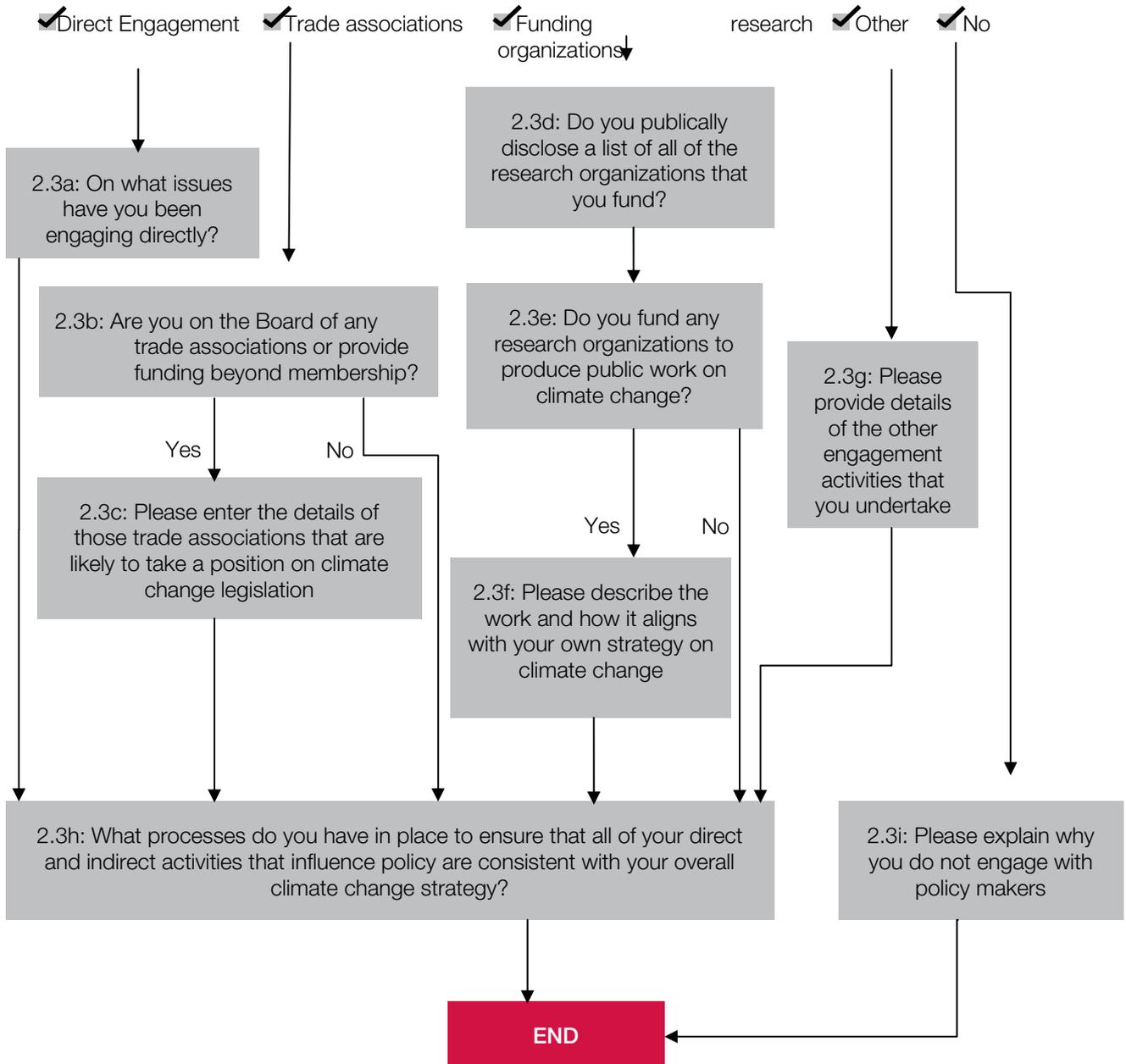
A company will be scored zero out of the total number of points available where the performance indicator described does not clearly relate to climate change.

2.Strategy page

Question Pathway

The following questions are shown on the Strategy page.





Notes: #Question included in the SME questionnaire

General Guidance

This section is focused on the processes and strategies that your organization uses to structure its approach to climate change.

Responses given in this section should be relevant to the reporting period, even if revisions have been made to the strategy between the reporting period and the time of submission of your CDP response. Where this is the case you can include more up to date information in further information at the bottom of the page. This will not be scored but will be available to the investors that view your response.

Key Changes from 2012

Question 2.3 on Engagement with Policymakers has been amended and now includes multiple pathways to allow respondents to separate out their engagement activities. Additional guidance has been provided on how to respond to question 2.3 and sub questions 2.3a-i.

The scoring methodology for question 2.3 has been revised to reflect the question changes. Questions 2.3, 2.3a and 2.3i will be scored for disclosure. No other questions in this question set (2.3-2.3i) will be scored for disclosure, and no questions in this question set will be scored for performance.

Pre-population

If you responded to CDP last year, questions 2.1, 2.1a, 2.2, 2.2a and 2.2b on this page are eligible for pre-population. To take advantage of this function, click “copy from last year” prior to entering any data on the page.

SME version

Questions 2.2, 2.2a and 2.2b on this page are included in the SME questionnaire.

Specific Question Guidance

Q2.1: Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

This question should be answered by selecting one of the three options available:

- Integrated into multi-disciplinary company wide risk management processes
 - A documented process where climate change risks and opportunities are integrated into the company's centralized enterprise risk management program covering all possible types/sources of risks and opportunities
- A specific climate change risk management process
 - A documented process which considers climate change risks and opportunities separate from other business risks and opportunities
- There are no documented processes for assessing and managing risks and opportunities from climate change

If you have more than one procedure in operation at your organization, please select the one that is most commonly employed. Where there is a procedure in place you will be given an opportunity to provide further details in response to question 2.1a (see below).

- **Disclosure Score:** Points are awarded where a selection has been made from the drop down menu.
- **Performance Score:** There are no performance points awarded for this question, but performance points for 2.1a are dependent on the selection made at 2.1.

Q2.1a: Please provide further details

This question only applies if you have selected one of the first two options in response to question 2.1 above.

You should respond to this question in the text box provided; your answer should be no more than 7,000 characters in length. Please use the buttons at the top of the text box to format your response as necessary. Please note that when copying from another document into the ORS, the formatting is not retained.

This question is asking about the process of analyzing risks and opportunities related to climate change, and not about the specific risks and opportunities that your organization may face - these are disclosed in questions 5.1 and 6.1. However, if you wish, you can use examples to illustrate your process description.

In responding to this question please cover the following points:

- i. the scope of the process, i.e. the type of risks and opportunities considered by the process such as regulatory, customer behavior changes, reputational and weather-related;
- ii. how risks/opportunities are assessed at a company level (e.g. reputational risk can impact on the full corporation);
- iii. how risks/opportunities are assessed at an asset level (e.g. physical impacts can affect individual facilities). Asset level is defined as anything below company level such as individual sites and subsidiaries;
- iv. the frequency of monitoring in terms of weeks/months/years;
- v. criteria for determining materiality/priorities; and
- vi. to whom are the results reported.

It is preferable, although not essential, that your response is organized under the points set out above.

- **Disclosure Score:** Points are awarded for completion of this question. For maximum points you should address all of the points set out above.
- **Performance Score:** Where this question is provided, performance points are available. Maximum points are awarded for either an integrated company wide risk management processes or a specific climate change risk management process where climate change risks are monitored annually or more frequently and if it is clearly stated that the results are reported to the Board.

Q2.2: Is climate change integrated into your business strategy?

Please respond to this question by selecting “yes” or “no” in the drop down menu provided.

You should answer “yes” when the need to reduce carbon emissions, the need to adapt to climate change and related energy impacts (positive or negative), the need to capitalize on opportunities presented by climate change or the need to communicate on/learn more about climate change is integrated into the company's overall business strategy. As such, it is part of the 'top line growth' strategy of the company, rather than being dealt with solely at the operational level. Answering “yes” will direct you to question 2.2a where you will have the opportunity to explain further.

You should answer “no” if climate change impacts/opportunities or carbon emissions reductions have no influence on your company's overall strategy for developing your business. Answering “no” will direct you to question 2.2b where you will have the opportunity to explain further.

- **Disclosure Score:** Points are awarded for completion of this question.
- **Performance Score:** There are no performance points available for this question, but performance

points for 2.2a and 2.2b are dependent on the selection made at 2.2.

Q.2.2a: Please describe the process and outcomes

This question only appears if you answer "yes" to question 2.2 (see above).

Please respond to this question in the text box provided, using no more than 7,000 characters. Please use the buttons at the top of the text box to format your response as necessary. Please note that when copying from another document into the ORS, the formatting is not retained.

This question asks about the process by which your strategy was influenced, and the outcomes of that process. If you wish, you may provide a description of your business strategy for information (oil & gas, electric utility and auto/auto component sector companies should see the information requests specific to their sectors below). However, disclosure and performance points are awarded only to data points that relate to the process and outcomes, as specified below.

This question is intended to focus on the group business strategy, meaning the full corporate body on which you are reporting. However if it is more appropriate, you may wish to comment on divisional (business unit) strategies. If you are responding to the request from a supply chain member, please also include information specific to your requesting member, i.e. relevant business units.

Your response should cover the following points:

- i. How the business strategy has been influenced, i.e. the internal process for collecting and reporting information to influence the strategy;
- ii. What aspects of climate change have influenced the strategy, e.g. need for adaptation, regulatory changes or opportunities to develop green business?;
- iii. The most important components of the short term strategy that have been influenced by climate change (e.g. changes in operational practices, changing the way business is communicated, etc.). Short term can mean current. If climate change has only affected the long term strategy, this should be stated;
- iv. The most important components of the long term strategy that have been influenced by climate change (e.g. changing core business focus, development and incorporation of new technologies, etc.). In the less likely event that climate change has only affected the short term strategy, this should be stated;
- v. How this is gaining you strategic advantage over your competitors;
- vi. What have been the most substantial business decisions made during the reporting year that have been influenced by the climate change driven aspects of the strategy (e.g. investment, location, procurement, M&A, R&D). Both the business decision and the aspect of climate change that has influenced the business decision must be made clear in the answer. If there are none to report, this should be stated.

The definition of 'short term' and 'long term' is left to be defined by the company as they mean different things in different industries (say, fashion industry compared to infrastructure). Companies should indicate what they mean by short or long term using dates in the answer. Unless stated otherwise it is assumed that 'short term' and 'long term' are ten or more years apart.

It is preferable, although not essential, that your response is formatted to distinguish between the points set out above, numbering your paragraphs to coincide with the relevant points.

- **Disclosure Score:** Points are awarded for completion of this question. All items in the list above need to be covered to get maximum disclosure points.
- **Performance Score:** Maximum performance points are available if it is clearly stated that climate

change has influenced both the short term and long term strategy; if the strategy is linked to an emissions reduction target and to climate change risks and opportunities.

Q2.2b: Please explain why not

This question only appears if you answer “no” to question 2.2 (see above).

Please respond using the text box provided, detailing (i) why climate change is not integrated into your business strategy and (ii) whether you expect it to be in the future. For example, climate change may have little effect on your business because of the nature of your goods/services. Please give as full an explanation as possible. This response has a character limit of 5,000 characters and formatting tools are available at the top of the text box. Please note however that formatting copied from another document into the ORS will not be retained.

- **Disclosure Score:** Points are awarded for completion of this question. To achieve these points companies should explain (i) why climate change is not integrated into their business strategy, and (ii) whether they expect it to be in the future. An answer with company specific information will score more disclosure points.
- **Performance Score:** Where companies have responded “No” to question 2.2 and have therefore been presented with question 2.2b, they will be scored zero out of the available performance points.

Guidance for Oil and Gas Sector Companies, Electric Utilities and Auto and Auto Component Manufacturers

Companies in these sectors should read the sector specific guidance for the risks and opportunities questions before answering this question. The guidance contains a number of issues that investor groups want these sectors to consider in answering the risks and opportunities questions and, you may wish to draw together some of these issues in your answers to questions on the integration of climate change into business strategy. Do not cross-refer to the risks and opportunities answers in your response to the questions above. Please provide a complete answer to these questions on business strategy in the input fields provided.

Additional issues are also covered below.

Oil and Gas Sector Companies: You should discuss, if relevant, your methodology for the integration of physical risks into the company strategy, investment decisions and risk management, including the assumptions used. Where possible, provide illustrative examples of the assumptions made in specific investment decisions. You should also discuss - again if relevant - the diversification of your portfolio into non-fossil fuel products (e.g. renewable energy) and strategy for development of carbon capture and sequestration technology, including technology areas of focus, and distinctive areas of strength your company believes it holds. Please give the methodology used for the integration of future carbon prices into exploration strategy and investment decisions, with the assumptions used. Where possible, provide illustrative examples of the assumptions made in specific investment decisions.

Electric Utility Sector Companies: Companies should discuss any work for the incorporation of a renewable energy, carbon capture & sequestration, cleaner coal technologies and energy storage into their strategy.

Auto & Auto Component Manufacturers: Companies should discuss:

- *links between risks and your targets for your products at group level and, where relevant, for specific markets on fuel economy or GHG emissions reductions per unit distance (expressed as*



gCO₂e/unit distance) and include a reference to any regulatory drivers and the baseline against which performance is measured;

- *expansion into hybrid/fully electric vehicles and fuel cell technology.*

Q2.3: Do you engage in activities that could either directly or indirectly influence policy on climate change through any of the following? (tick all that apply)

- Direct engagement
- Trade associations
- Funding research organizations
- Other
- No

If you engage in activities that could either directly or indirectly influence climate change policy select at least one of the first four options (direct engagement, trade associations, funding research organizations or other) by ticking the adjacent box. If more than one applies you can select multiple options. This question is focused on external engagement with policy makers, government departments or regulatory bodies on a regional, local, national or international level. Responses should be relevant to the reporting year only, and only be reported if you have engaged in any of the aforementioned activities that could influence policy on climate change.

If you have multiple activities that cannot be described as direct engagement, engagement through trade associations or engagement through funding research organizations, then please select “Other” – you will be given the opportunity to explain all the engagement activities that you have included under “Other” in a subsequent question.

There will be a wide range of activities that could be considered to fall under each of these options. In response to this question please select all that apply regardless of your role and how significant those activities are for your company or a third party. For trade associations and funding research organizations you should identify any relationships where the other party takes an active role in climate change even if your own relationship with them is not climate change focused. You will be given an opportunity to describe the engagement in subsequent questions. More guidance and examples of the types of activities that could fall under each of the categories is given in Box 1 below.

Only if you do not engage in any engagement with policy makers, direct or indirect, select “No” by ticking the adjacent box. Do not select “No” as well as one of the other options as it is a non-logical response.

Your selections made at this question will determine which other questions will appear on this page, as detailed in the page flow chart at the beginning of this section and in the question guidance below.

- **Disclosure Score:** Points are awarded for selection of one or more tick boxes. No points will be awarded for this or subsequent questions in this section if multiple options including ‘no’ are selected.
- **Performance Score:** No performance points are associated with this question.

Box 1: Examples of engagement activity

Direct engagement:

This includes all activity where companies (or their representatives such as law firms, or public affairs agencies engaged directly by the company) engage with policy makers on the development of law. Examples of such activities include responding to a consultation, sitting on a working group or lobbying activities directed at individuals or groups that are part of the policy making process. Direct engagement can include any stage in the policy development process, from the selection of options to final consultation comments, but does not include compliance with legislation once it has come into force.

Trade associations:

Trade associations (sometimes also referred to as industry associations) are an association of people or companies in a particular business or trade, organized to promote their common interests. Their relevance in this context is that they present an “industry voice” to governments to influence their policy development. The majority of organizations are members of multiple trade associations, many of which take a position on climate change and actively engage with policy makers on the development of policy and legislation on behalf of their members. It is acknowledged that in many cases companies are passive members of the trade associations and therefore do not actively take part in their work on climate change. This will be investigated in subsequent questions and therefore if you are a member of a trade association that engages on climate change, regardless of your own involvement, you should tick “trade associations” at question 2.3.

Funding research organizations:

In this context, research organizations can include research institutions, think tanks and other consultancies that operate in the climate change subject area on projects intended for public dissemination that aim to influence policy. The work that you commission them for or the support that you give them may or may not be climate change related, however if they do engage in work on climate change you should identify them here.

Other:

Examples of “Other” activities include, but are not limited to:

- engaging directly with government officials or departments on matters other than legislation relating to climate change e.g. green procurement strategies;
- taking part in climate change projects on behalf of governments;
- undertaking research or taking part in research projects with the objective to inform policy development or implementation;
- engaging with policy makers through groups (local, national or international) other than trade associations (either directly or through funding);
- engaging with governments through special purpose, single issue groups, for example against a particular Bill, or a development project;
- sponsoring or taking part in events on climate change with a policy maker audience;
- producing other media (e.g. video, blog, social media) that aims to influence policy makers on climate change.

Q2.3a: On what issues have you been engaging directly?

This question only appears if “Direct engagement” is ticked in response to question 2.3.

Please respond to this question by completing the table provided in the ORS and reproduced below.

Focus of legislation	Corporate Position	Details of engagement	Proposed solution
Select from: Mandatory carbon reporting Cap and trade Carbon tax Energy efficiency Clean energy generation Adaptation resiliency Climate finance Other, please specify	Select from: Support Support with minor exceptions Support with major exceptions Neutral Oppose Undecided	Text box (maximum 2400 characters)	Text box (maximum 2400 characters)

You can provide multiple entries by clicking the “Add Row” button to the bottom right of the table. Further guidance on how to complete each column is provided below.

- **Focus of legislation.** This column relates to the general area to which the legislation that you are engaging on falls. It is to allow investors and other data users to assess comparable legislative developments across multiple geographies. If none of the options apply, select “Other” and enter the focus of the legislation in the text box that appears. Note that you will have an opportunity to provide details of the legislation in subsequent columns. There is no need to provide details on all legislation types – only those on which you have been actively engaging in the reporting year.
- **Corporate position.** This should reflect your overall position on this particular legislation type. For example:
 - Support – select this option if you are engaging in full support of this legislation type across all the geographies in which you are engaging on it.
 - Support with minor exceptions – select this option if you are engaging in support of this legislation type with either minor exceptions to the approach or with minor exceptions to geographies for whom it is proposed and where you are actively engaging. Additionally, if you support the principle of a carbon tax but oppose certain ways in which it is being applied, select this option. You will be given the chance to explain in the next column.
 - Support with major exceptions – select this option if you are engaging in support of this legislation type with either major exceptions to the approach or with major exceptions to geographies for whom it is proposed and where you are actively engaging.
 - Neutral – select this option if you have taken part in engagement activities for this legislation type but have not put forward a view.
 - Oppose – select this option if you have been engaging against this legislation type across all relevant geographies.



- o Undecided – select this option if you have been engaging on this legislation at an early stage in the development process and have yet to give an opinion or attempt to influence the policy development process in any direction.
- **Details of engagement.** This column gives an opportunity to provide more details on the particular legislation on which you are engaging. Use the text field to provide details of how you are engaging (e.g. responding to a consultation, meeting directly with policy makers etc) and the legislation on which you are engaging. Please give the name of the legislation and the geographies to which it applies. Please only give details of the legislation that you have engaged on in the reporting year. This field has a character limit of 2400 characters.
- **Proposed solution.** This column gives an opportunity to provide more details on the actions you are advocating. If you support the legislation with no exceptions you can state this. However if you support it with exceptions you should provide details of the exceptions and what you would propose in their place. If you oppose the legislation please provide details of an alternative legislative approach that you feel would more effectively reduce carbon emissions in the corporate sector. This field has a character limit of 2400 characters.

Box 2: Worked example of Q2.3a on direct engagement

Focus of legislation	Corporate position	Details of engagement	Proposed solution
Mandatory carbon reporting	Support	We participated in Defra’s consultation with leading businesses on making it compulsory for all businesses listed on the Main Market of the London Stock Exchange to include emissions data for their entire organization in their annual reports	We support the UK legislation on mandatory carbon reporting with no exceptions
Carbon Tax	Support with major exceptions	Engaged with Australian Federal Government to communicate the commercial benefits and risks of a Carbon Tax at various levels	We support this provided it is industry-wide and revenue neutral

- **Disclosure Score:** Columns 1 and 2 (“Focus of legislation” and “Corporate position”) must be completed for any further points to be scored. Points are available if details of the engagement are given in column 3 (“details of engagement”). Column 4 (“proposed solution”) is not scored.
- **Performance Score:** No performance points are associated with this question.

Q2.3b: Are you on the Board of any trade associations or provide funding beyond membership?



This question only appears if “Trade associations” is ticked in response to question 2.3.

Select “Yes” or “No” from the drop down menu provided in the ORS to respond to this question. If you select “Yes” you will be presented with further questions on your trade association activities (question 2.3c, see below). If you select “No” you will be presented with no further questions on trade associations. Note that this question is not asking about all the trade associations that you are a member of, only those that you have a more significant influence over due to Board membership or through providing funding beyond membership.

- **Disclosure and performance:** This question is not scored.

Q2.3c: Please enter the details of those trade associations that are likely to take a position on climate change legislation

This question only appears if “Trade associations” is ticked in response to question 2.3 and “Yes” is selected in response to question 2.3b.

Please respond to this question by completing the table provided in the ORS and reproduced below.

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association’s position	How have you, or are you attempting to, influence the position
Text box: Enter the name of the trade association(s) that you are on the Board of or provide funding beyond membership	Select from: Consistent Inconsistent Mixed Unknown	Text box: Give details of the trade association position on climate change (and explain where this position differs from your own if it does). Where appropriate give examples of activities the trade association has undertaken in the reporting year to influence climate change policy, using no more than 2400 characters.	Text box: Use this column to describe how you have worked, or are in the process of working with the trade association to promote the current or an alternative position, using no more than 2400 characters.

If you have multiple trade association relationships that apply you can use the “Add Row” button to the bottom right of the table.

Box 3: Climate change position of trade associations

To aid companies in sorting through the climate-related action of trade associations and determining where the groups in which they belong actually stand on climate change, the Center for Science and Democracy at the Union of Concerned Scientists is currently developing an analysis focused on the positions that trade and business associations have taken in the public discourse on climate science and policy in recent years. To be released in the coming months, the analysis will look at many of the largest and most influential trade and business associations in the United States and globally. Areas to be explored include how these groups understand the science of climate change, the positions they have on climate policy, and what actions they have taken with respect to specific climate-related policy proposals in recent years. The full analysis will be available from February 2013 at <http://www.ucsusa.org/tradegroups>.

- Disclosure and performance: This question is not scored.

Q2.3d: Do you publically disclose a list of all the research organizations that you fund?

This question only appears if “Funding research organizations” is ticked in response to question 2.3.

Select “Yes” or “No” from the drop down menu provided. This question refers to all research organizations that you fund and not just those related to climate change.

- Disclosure and performance: This question is not scored.

Q2.3e: Do you fund any research organizations to produce public work on climate change?

This question only appears if “Funding research organizations” is ticked in response to question 2.3.

Select “Yes” or “No” from the drop down menu provided in the ORS to respond to this question. If you select “Yes” you will be presented with further questions on your funding research organizations activities (question 2.3f, see below). If you select “No” you will progress to question 2.3h.

- Disclosure and performance: This question is not scored.

Q2.3f: Please describe the work and how it aligns with your own strategy on climate change

This question only appears if “Funding research organizations” is ticked in response to question 2.3 and “Yes” is selected in response to question 2.3e.

Use the text box provided to give details of the public work that has been funded by you on climate change that has been released in the reporting year. Please give details of the title and topic of the work, its output (i.e. report, film, briefing note, web content etc), which organization it was completed by and how the results align with your own strategy on climate change (for example explaining your own position and how the work produced may support or contradict it). This text box has a character limit of 5000 characters. The rich text facility is also enabled for this question which will allow you to use formatting in your response if needed.

- Disclosure and performance: This question is not scored.

Q2.3g: Please provide details of the other engagement activities that you undertake

This question only appears if “Other” is ticked in response to question 2.3.

Please use the text box provided to detail any other activities that you have engaged in the reporting year that could either directly or indirectly influence policy on climate change. For each activity identify the method of engagement (individual or through a group), the topic of engagement (for example a piece of legislation or a tax), the nature of the engagement (i.e. what your activities were) and the actions that you are advocating as part of that engagement. This question has a character limit of 5000 characters and rich text is available to format your response if required.

- Disclosure and performance: This question is not scored.

Q2.3h: What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

This question only appears if you have selected “Direct engagement”, “Trade associations”, “Funding research organizations” or “Other” in response to question 2.3.

This question appears only once regardless of how many of the first four options you have selected in response to question 2.3. The intention is to gain an understanding of how you as an organization manage the multiple engagement activities around climate change across business divisions and geographies to ensure that you have a common approach that is also consistent with your strategy on climate change. Use the text box provided to explain the processes that you have in place, or if you do not have any in place, how you plan to address this potential for conflict in the future. Use no more than 5000 characters; rich text is available for formatting is required.

- **Disclosure and performance:** This question is not scored.

Q2.3i: Please explain why you do not engage with policy makers

This question only appears if “No” is ticked in response to question 2.3.

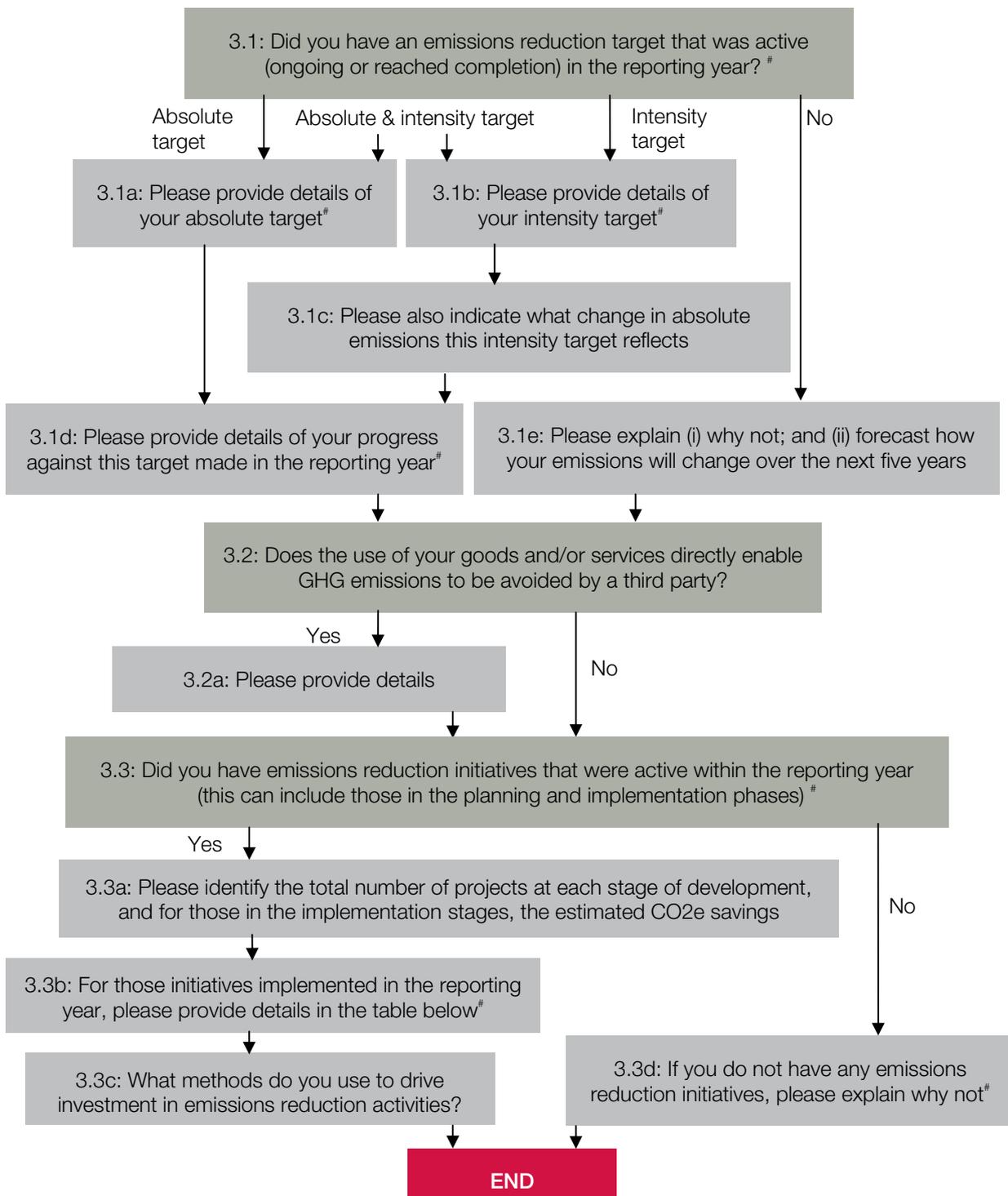
Please use the text box provided to, using no more than 5000 characters, explain why you do not pursue activities that have the potential to influence climate change policy. Rich text is available to format your response if required.

- **Disclosure Score:** Disclosure points are available for providing an explanation, as per the above text.
- **Performance Score:** No performance points are associated with this question.

3. Targets & Initiatives

Question Pathway

The following questions are shown on the Targets and Initiatives page.



Notes: #Questions included in the SME questionnaire

General Guidance

This section focuses on the targets and initiatives you have in place to reduce the emissions derived from your activities, directly or indirectly.

Carbon Action

Questions 3.1, 3.1a, 3.1b, 3.1c, 3.1d, 3.1e, 3.3, 3.3a, 3.3b, 3.3c and 3.3d are used in the analysis for the Carbon Action Initiative. If you have received an action request letter from CDP on behalf of the Carbon Action Signatories, please respond to this question as normal in the online response system. For more details on Carbon Action see <https://www.cdproject.net/en-US/Programmes/Pages/Initiatives-CDP-Carbon-Action.aspx>.

Key Changes from 2012

The following question changes have been made:

- Column headers have been updated for clarification in questions 3.3a and 3.3b;
- Disclosure scoring has been introduced for question 3.3a;
- More options have been provided for payback period, extending to >25 years.

Pre-population

If you responded to CDP last year, questions 3.2, 3.2a, 3.3 and 3.3c on this page are eligible for pre-population. To take advantage of this function, click “copy from last year” prior to entering any data on the page.

SME version

Questions 3.1, 3.1a, 3.1b, 3.1d, 3.3, 3.3b and 3.3d on this page are included in the SME questionnaire.

Specific Question Guidance

Q3.1: Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

You have an “active emissions reduction target” if:

- You have a target that began in the reporting year, began before the reporting year and ends after it, or you had a target that ended in the reporting year, AND
- The target is to reduce emissions or emissions intensity

Note that if you have a target that is expected to 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. If you are uncertain of the proportion that will be achieved through emission 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 supply chain can be captured as Scope 3 targets. Targets that are based on a future “business as usual” base year are not equivalent to emission reduction targets and therefore should not be reported here.

Where your target is related to a specific activity or emissions source you should convert your target into an emissions reduction target. For example, if your target is to reduce energy use, this will probably result in emissions reductions and you should use these emissions reductions to report your target. A target to reduce energy consumption by 20% by 2020 will have a corresponding emission reduction percentage value by 2020.

Please check examples in Box 4.

You will need to select one of the following options:

- Absolute target
 - Select this option if you have or had an active emissions reduction target during the reporting year and it is an absolute target. An absolute target is one that 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. Examples of absolute targets are included in Box 4. If you select this option you will be directed to question 3.1a and 3.1d.
- Intensity target
 - Select this option if you have or had an active emissions reduction target during the reporting year and it is an intensity target. An intensity target is one that describes a future reduction in emissions that have been normalized to a business metric when compared to normalized emissions in a base year. As for absolute targets, an intensity target can relate to your scope 1, scope 2 and/or scope 3 emissions in full or in part. Examples of intensity targets are included in Box 4. If you select this option you will be presented with questions 3.1b, 3.1c and 3.1d.
- Absolute and intensity targets
 - Select this option if you have both absolute and intensity emissions reduction targets that are/were active within the reporting year. If you select this option you will be presented with questions 3.1a-3.1d.
- No
 - Select this option if you have not had an active emissions reduction target during the reporting year. If you select this option you will be presented with question 3.1e.

Oil and Gas Sector Companies

Investors request that targets at group and subsidiary/divisional levels are disclosed.

Electric Utility Sector Companies

Investors request that targets are expressed at group level and where applicable at subsidiary/divisional level and that intensity targets are also expressed as absolute targets where possible.

Auto Manufacturing Companies

In addition to any absolute targets, you should disclose your CO₂ and/or fuel economy targets for products at group level and, where relevant, for specific markets. Targets should be expressed in grams CO₂ per kilometer.

- Disclosure Score: Points are awarded for selecting a drop down option.
- Performance Score: There are no performance points associated with this question

Box 4: Examples of targets

The following are examples of absolute targets:

- metric tonnes CO₂e or % reduction from base year
- metric tonnes CO₂e or % reduction in product use phase relative to base year
- metric tonnes CO₂e or % reduction in supply chain relative to base year

- metric tonnes CO₂e or % reduction per year
- metric tonnes CO₂e or % reduction relative to 5 year rolling average of emissions
- cap on emissions in metric tonnes CO₂e

The following are examples of intensity targets:

- metric tonnes CO₂e or % reduction per unit revenue (also per unit turnover; per unit gross sales) relative to base year
- metric tonnes CO₂e 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 tonnes CO₂e or % reduction per unit of product (e.g. metric tonne of paper; metric tonne of aluminum) relative to base year
- metric tonnes CO₂e or % reduction per passenger kilometer (also per km; per nautical mile) relative to base year
- metric tonnes CO₂e or % reduction per square foot relative to base year
- cap on emissions relative to an activity (e.g. stabilizing emissions at x metric tonnes CO₂e per metric tonne of steel produced)
- metric tonnes CO₂e or % reduction per MWh
- metric tonnes CO₂e or % reduction in emissions from business flights per employee

Worked examples on how to convert energy related targets to emissions reduction targets

Many companies have targets that relate to their energy consumption. Reducing energy consumption is likely to lead to reduce emissions and therefore this target can be converted into an emissions reduction target.

The equivalent reductions of an energy target are set based on a consequential approach to accounting. Thus the principles to be followed are the ones set in the GHG Project Protocol, although the rigor required is not the same.

Target for reduction of electricity consumption

A company has an electricity consumption in the base year of the target equal to 1205789MWh. In the base year the company is being supplied by the grid and is not buying any specific instruments and thus is using an average grid emission factor, which we will assume equal to 0.55 metric tonnes CO₂e per MWh

Therefore, the emissions in the base year from electricity consumption are (1205789×0.55) 663183 metric tonnes CO₂e.

The company has set an energy reduction target of 20% reduction in electricity consumption for the next 10 years. Assuming that the emissions factor remains the same in the target year, a 20% reduction in electricity consumption will result in a 20% reduction in emissions.

Therefore, electricity consumption emissions in the target year are $(663183 - (663183 \times (20/100)))$ 530547 metric tonnes CO₂e.

Please note that the fundamental assumption here is that the “emission factor remains the same”. In most cases this is very unlikely to happen, however, for the purposes of responding to this question and the rigor involved, it can be an acceptable assumption.

From a GHG inventory perspective this target could also be achieved not by reducing consumption of electricity but by self-generation of renewable electricity (decreasing the purchase amounts) or by buying renewable energy from a supplier using appropriate tracking instruments. The target would be the same even though the ways to achieve it would be different. Because each option has its own

consequences, it is important to distinguish how it is proposed to achieve the target.

Please also note that, if in the base year, the company is already accounting for a certain amount of its electricity consumption as low emission electricity, then, following the same principle of using the conditions of the base year of the target, that amount also needs to be reflected for the purpose of the calculation of the emission reductions.

Thus, if 50% of the electricity was renewable electricity with a 0 t/CO₂e emission factor, the emissions in the base year would be $(1205789/2 \times 0.55 + 1205789/2 \times 0)$ 331591.5 metric tonnes CO₂e. There are two ways of calculating the emissions reductions in the target year then. One assuming that the % of RE will stay the same; another assuming that the amount of RE purchased will stay the same.

In the first case, the corresponding expected emissions in the target year would be $[(1-0.2) \times (1205789/2 \times 0.55 + 1205789/2 \times 0)]$ 265273.6 tCO₂e. As in the past example, the assumption is that the “average mix emission factor” of the electricity contracted by the company stays the same.

In the second case, the corresponding expected emissions in the target year would be $[(0.8 \times 1205789) - (1205789/2) \times 0.55]$ 198955.2 tCO₂e. Please be aware that in this example a commitment is made to maintain the same purchase amounts of RE power through the entire period of the target.

As illustrated in this example, companies can also reduce the emissions by reducing the Emission Factor of the electricity (energy carrier) – this is, by establishing increasing levels of Renewable Energy purchases. For fuels, fuel switch is the option to decrease the emission factor and this can also be disclosed under “Comments”.

Q3.1a: Please provide details of your absolute target

This question only appears if you select “Absolute target” or “Absolute and intensity targets” in response to question 3.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below. Worked examples are provided in Box 5.

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO ₂ e)	Target year	Comment

If you have multiple targets, you can enter them into the table by adding add more rows using use the ‘Add Row’ button to the bottom right.

Guidance on responding to each of the columns is provided below:

- **ID**
 - Where companies that have multiple targets (either multiple absolute/intensity targets or absolute and intensity targets), they should enter a unique ID in this field to identify that target in subsequent questions. The ID can be up to 5 characters long and using letters and/or numbers. The ID must be unique across the target types, i.e. if a company is reporting absolute and intensity targets the number must be unique looking at both tables together. For example, there should not be a target 1 in the absolute table and a target 1 in the intensity table.
- **Scope**
 - This refers to the scope(s) of emissions to which the target relates to. Note that this does not have to comprise all emissions within a particular scope –this is addressed in the following column. Select one of the following values from the drop down menu provided:
 - Scope 1;

- Scope 2;
- Scope 1+2;
- Scope 1+2+3;
- Scope 3: Purchased goods & services
- Scope 3: Capital goods
- Scope 3: Fuel- and energy-related activities (not included in Scopes 1 or 2)
- Scope 3: Upstream transportation & 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 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
- Other, please specify

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 December 2011. Companies should refer to the standard for information on the sources that each category comprises and additional information on how to calculate these emissions.

If you are specifying a Scope 3 source under "Other", please make clear whether it is an upstream or downstream source.

- **% of emissions in scope**
 - Identify the percentage of the total measured emissions of that particular scope in the base year that your target applies to. For example, if your target is to reduce Scope 1 emissions arising from your European operations, and these European operations accounted for 80% of your total Scope 1 emissions in the base year, you should enter 80 into this column. Other examples could be where a target relates to a particular business activity (e.g. production facility, office based operations, etc.). If you have selected a scope sub-category in the previous column (e.g. Scope 3: Business travel) you should specify the percentage emissions in that sub-category rather than the scope as a whole.
- **% reduction from base year**
 - Enter your emissions reduction targets as a percentage reduction of emissions to be achieved in the target year compared with the base year. For example, if your target is to reduce your Scope 1 emissions by 3000 metric tonnes CO₂e and your base year emissions were 150000 metric tonnes CO₂e, you should enter 2 into this column. If your target is to cap emissions at the baseline level you should enter zero in this column.
- **Base year**
 - Please enter a whole number between 1900 and 2013. If you have a year on year rolling target your base year will be the previous reporting year. If you have a target based on financial years, please enter the year that applies to the end of your financial year. If you have a target based on an average (e.g. 5 year average), please enter the year that applies to the end of the average period. For both financial year and average base years, please



use the Comment column at the end of the table to identify this. It is not possible to enter base years that are in the future.

- **Base year emissions (metric tonnes CO2e)**
 - Enter the base year emissions relevant to the target in this column. For example if your target is to reduce Scope 1 emissions arising from your European operations, enter the base year Scope 1 emissions for the European operations only. Entries into this column should be in metric tonnes CO2e and should be numeric values no longer than 9999999999 and to no more than 2 decimal places.
- **Target year**
 - Please enter a whole number between 2000 and 2100. If you have a year on year rolling target your target year will be the reporting year. If you have a target based on financial years, please enter the year that applies to the end of your financial year. If you have a target based on an average (e.g. 5 year average), please enter the year that applies to the end of the average period. For both financial year and average target years, please use the Comment column at the end of the table to identify this.
- **Comment**
 - You can use this column to provide any context to your target that you think is relevant. As noted above you can use this column to identify where you have a financial year or average year based target. You may also wish to give the original target, before it was converted into a % reduction format for the purposes of this table, or if your target is part of a wider carbon neutrality goal, a regulatory requirement or a longer term target, you can explain this here. If your target relates to renewable energy purchase (i.e. that your consumption will remain the same or increase but you will purchase more from renewable sources), please state here if the target is also associated with any reductions in the consumption of electricity and if not, why not. This column can also be used to identify stabilization targets, as demonstrated in Box 5. This column is a free text field; all entries should be less than 2,400 characters.

Box 5: Worked example of absolute target table

The following table shows four absolute target examples:

- a target to reduce total Scope 1 emissions by 2,000 metric tonnes CO2e compared with the previous year's Scope 1 emissions of 830 000 metric tonnes CO2e (ID=A-01);
- a target to stabilize emissions from European operations at 2007 levels by 2013 (ID=A-02);
- a target to reduce total Scope 2 emissions from 10% in 2010 to 25% by 2015 (ID=A-03);
- a target to reduce product-use emissions from the alpha product range by 30% by 2020 relative to 2000 (ID=A-04).

ID	Scope	% of emissions in Scope	% reduction from base year	Base year	Base year emissions	Target year	Comment
A-01	1	100	0.2	2011	830000	2012	
A-02	1	80	0	2007	315000	2013	This is a stabilization target; we aim to stabilize our emissions at 2007 levels by 2013

A-03	2	100	15	2010	55000	2015	This will be achieved through reductions in electricity consumption
A-04	3 – Use of sold products	40	30	2000	47622000	2020	

Q3.1b: Please provide details of your intensity target

This question only appears if you select “Intensity target” or “Absolute and intensity targets” in response to question 3.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment

If you have multiple targets, you can enter them into the table by adding add more rows using use the ‘Add Row’ button to the bottom right.

Guidance on responding to each of the columns is provided below:

- **ID**
 - See guidance for question 3.1a (absolute targets)
- **Scope**
 - See guidance for question 3.1a (absolute targets)
- **% of emissions in scope**
 - See guidance for question 3.1a (absolute targets)
- **% reduction from base year**
 - Enter your emissions reduction targets as a percentage reduction of the intensity (normalized) emissions to be achieved in the target year compared with the base year. For example, if your target is to reduce your Scope 1 emissions per full time equivalent (FTE) employee to 7 metric tonnes CO₂e per FTE employee and your base year emissions were 9 metric tonnes per FTE employee, you should enter 22 into this column (i.e., $(9-7)/9=0.22$; then multiply by 100 for percentage value).
- **Metric**
 - Select one of the following options from the drop down menu:
 - grams CO₂e per kilometer
 - metric tonnes CO₂e per unit revenue (this is analogous to unit sales or unit turnover)
 - metric tonnes CO₂e per FTE employee
 - metric tonnes CO₂e per unit hour worked
 - metric tonnes CO₂e per metric tonne of product
 - metric tonnes CO₂e per liter of product

- metric tonnes CO₂e per unit of production
- metric tonnes CO₂e per unit of service provided
- metric tonnes CO₂e per square foot
- metric tonnes CO₂e per square meter
- metric tonnes CO₂e per kilometer
- metric tonnes CO₂e per passenger kilometer
- metric tonnes CO₂e per megawatt hour (MWh)
- metric tonnes CO₂e per barrel of oil equivalent (BOE)
- metric tonnes CO₂e per vehicle produced
- metric tonnes CO₂e per tonne aluminum
- metric tonnes CO₂e per tonne of ore processed
- metric tonnes CO₂e per ounce of gold
- metric tonnes CO₂e per ounce of platinum
- metric tonnes CO₂e per tonne of aggregate
- metric tonnes CO₂e per tonne of steel
- metric tonnes CO₂e per billion (currency) funds under management
- Other, please specify
 - If you select “Other, please specify” you should enter the metric of your target in the text box provided. This should be in the format MASS CO₂E PER ACTIVITY, as in the options above.
- **Base year**
 - See guidance for question 3.1a (absolute targets).
- **Normalized base year emissions**
 - See guidance for question 3.1a (absolute targets). Note that you should enter the intensity (normalized) base year emissions relevant to the target (i.e. total emissions divided by the intensity denominator), not the total scope emissions. For example, if your target is to reduce emissions per FTE employee, you should enter the base year emissions per FTE employee here. Up to 6 decimal places can be entered in this field.
- **Target year**
 - See guidance for question 3.1a (absolute targets)
- **Comment**
 - See guidance for question 3.1a (absolute targets)
- Worked examples are provided in Box 6 below.
- **Disclosure Score:** For either question 3.1a or question 3.1b (whichever is relevant), you need to complete the following columns: Scope; % reduction from base year; base year; base year emissions (normalized for an intensity target); target year. If you are providing an intensity target, the metric column must also be completed. Maximum points are available if “% emissions in scope” is also given.
- **Performance Score:** Scope; % reduction from base year; base year; base year emissions; target year (and for intensity targets, metric) must be completed to score performance points. More points are available for having an absolute target compared to an intensity target. However, intensity targets that will lead to absolute emission reductions will score almost as highly as absolute targets.



Targets against a future base year (“business as usual”) will not be awarded disclosure or performance points.

Box 6: Worked example of intensity target table

The following table shows four intensity target examples:

- a target to maintain total emissions (Scope 1 and 2) per Million US\$ revenue from US operations at the same level as last year (ID=I-01);
- a target to reduce the total Scope 1 and 2 emissions by 2% per annum per FTE employee (ID=I-02);
- a target to reduce emissions from 373 metric tonnes CO₂e per MWh produced in 2008 to 300 metric tonnes CO₂e per MWh produced by 2013 (ID=I-03);
- a target to reduce emissions from business flights per FTE employee by 10% by the financial year 2019-2020 from a base year of financial year 2004-2005 (ID=I-04).

ID	Scope	% of emissions in Scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
I-01	1+2	79	0	metric tonnes CO ₂ e per unit revenue	2011	0.0003	2012	
I-02	1+2	100	2	metric tonnes CO ₂ e per FTE employee	2011	3.78	2012	This is an annual rolling target
I-03	1	90	20	metric tonnes CO ₂ e per MWh	2008	0.6	2013	
I-04	3 – Business travel	60	10	metric tonnes CO ₂ e per FTE employee	2005	2.6	2020	Relates to FY 2004-2005 (base year) and FY 2019-2020 (target year)

Q3.1c: Please also indicate what change in absolute emissions this intensity target reflects

This question only appears if you select “Intensity target” or “Absolute and intensity targets” in response to question 3.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment

If you wish to add more rows to the table, please use the 'Add Row' button to the bottom right.

Guidance on responding to each of the columns is provided below:

- **ID**
 - Please enter the unique ID for your target as defined in 3.1b.
- **Direction of change anticipated in absolute Scope 1+2 emissions at target completion?**
 - *Complete this column if your target relates to Scope 1 and/or 2 emissions only.*
 - Select from the following options in the drop down menu provided: Increase; Decrease; No change. You should determine the direction of change expected in your total absolute emissions if you achieve your intensity target. This will be based on assumptions of changes in the business metrics on which your target is based. For example, if your target is to reduce Scope 1 emissions per employee by 10% by 2020, you will need to predict the number of employees you expect to have in 2020 and, assuming you reach your target, whether this would be an increase, decrease or no change in total emissions compared to the base year of your target.
- **% change anticipated in absolute Scope 1+2 emissions**
 - *Complete this column if your target relates to Scope 1 and/or 2 emissions only.*
 - This column asks for the percentage change in absolute emissions expected, based on the calculations described for the previous column. This column accepts numeric values up to 999, allowing up to two decimal places. This should reflect the percentage change of the total measured emissions within the scope category chosen for the target (i.e. column 2 of table 3.1b).
- **Direction of change anticipated in absolute Scope 3 emissions at target completion?**
 - *Complete this column if your target relates to Scope 3 emissions only.*
 - Select from the following options in the drop down menu provided: Increase; Decrease; No change. You should determine the direction of change expected in your total absolute emissions if you achieve your intensity target. This will be based on assumptions of changes in the business metrics on which your target is based. For example, if your target is to reduce Scope 3 business travel emissions per employee by 10% by 2020, you will need to predict the number of employees you expect to have in 2020 and, assuming you reach your target, whether this would be an increase, decrease or no change in total emissions compared to the base year of your target.
- **% change anticipated in absolute Scope 3 emissions**
 - *Complete this column if your target relates to Scope 3 emissions only.*
 - This column asks for the percentage change in absolute emissions expected, based on the calculations described for the previous column. This column accepts numeric values up to 999, allowing up to two decimal places. This should reflect the percentage change of the total measured emissions within the scope category chosen for the target (i.e. column 2 of table 3.1b).



If your target includes a combination of all scopes, the percentage reduction expected to be accounted for in Scope 1 and/or 2 reductions should be completed in columns 2-3 and that in Scope 3 reductions completed in columns 4-5, based on current estimates/plans.

You should complete a row of this table for each intensity target you describe in answer to question 3.1b.

- Disclosure Score:** Disclosure points will only be awarded for answers to this question if they relate to a fully-defined target given in answer to 3.1b. While the provision of an ID is not scored, scorers must be able to identify which target is referred to when the points requested by this question are being given. If scorers cannot identify the target under discussion, no points will be awarded.

Organizations must complete the relevant columns for the target to score i.e. if the target relates to Scope 1 and/or Scope 2, then columns 2 & 3 must be completed; if the target relates to Scope 3, then columns 4 & 5 must be completed.
- Performance Score:** Performance points will only be awarded for answers to this question if they relate to a fully-defined target given in answer to 3.1b. Answers which refer to a decrease in carbon emissions will score performance points. While the provision of an ID is not scored, scorers must be able to identify which target is referred to when the points requested by this question are being given. If scorers cannot identify the target under discussion, no points will be awarded.

Organizations must complete the relevant columns for the target to score (see above) and show decreases in the relevant emissions. Maximum points on this question and on the previous question, when aggregated, are slightly less than the maximum points available for an absolute target.

Q3.1d: Please provide details on your progress against this target made in the reporting year

This question only appears if you select “Absolute target” or “Intensity target” or “Absolute and intensity targets” in response to question 3.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

ID	% complete (time)	% complete (emissions)	Comment

To add more rows to the table, please use the ‘Add Row’ button to the bottom right.

Guidance on responding to each of the columns is provided below:

- ID**

 - o Please enter the unique IDs for your targets.
- % complete (time)**

 - o This column accepts numeric entries only, to two decimal places; there is no need to enter the percentage symbol. You should indicate how far you are in your target by indicating the percentage complete in time. For example, if you have a target base year of 2006, your target year is 2013 (a 7 year target period) and your reporting year is 2011 (5 years into the target period), you are 71% complete in time $((5/7)*100)$. If you have a year on year target, or if your target period was completed in the reporting year, you will be 100% complete in time.
- % complete (emissions)**

 - o This column accepts numeric entries only, to two decimal places; there is no need to enter the percentage symbol. You should indicate how far you are in your target by indicating

the percentage complete in emissions. For example, if your target is to reduce your Scope 1 emissions by 10% by 2012 compared with a 2005 target base year, and in your reporting year your Scope 1 emissions had reduced by 3% compared to that target base year, you are 30% complete in emissions $((3/10)*100)$. If you have met your target in the reporting year you will be 100% complete in emissions. Note that it is not possible to put values greater than 100% in this field, however if you have exceeded your target you can explain this in the Comment column. If you have reached your target year (i.e. you are 100% complete in time) but you have not met your target, you should enter the percentage of the target completed.

- **Comment**

- o You can use this text field to enter any other information that you consider relevant. This could include how you expect your emissions trajectory to progress in the future, or if you have exceeded your target you could provide details here. You should use no more than 2,400 characters.

You should complete a row of this table for each target you describe in answer to questions 3.1a or 3.1b using the ID column to identify them.

- **Disclosure Score:** Disclosure points will only be awarded if answers relate to a target that has been fully defined in questions 3.1a or 3.1b. While the provision of an ID is not scored, scorers must be able to identify which target is referred to when the points requested by this question are being given. If scorers cannot identify the target under discussion, no points will be awarded. The second and third columns of this table need to be completed to score disclosure points.
- **Performance Score:** Companies that do not meet their target will not be awarded performance points. Please note that the target must be fully defined in question 3.1a or 3.1b and progress fully disclosed in 3.1d for companies to be eligible for performance points for this question. If these criteria are not met, companies will not be awarded performance points on this. While the provision of an ID is not scored, scorers must be able to identify which target is referred to when the points requested by this question are being given. If scorers cannot identify the target under discussion, no points will be awarded.

Q3.1e: Please explain (i) why not; and (ii) forecast how your emissions will change over the next five years

This question only appears if you select "No" in response to question 3.1.

Please respond to this question in the text box provided, using no more than 5,000 characters. It is preferable, although not essential, that your response is organized under the points set out above. Formatting tools are available at the top of the text box. Please note however that formatting copied from another document into the ORS will not be retained.

- **Disclosure Score:** Points are awarded for completion of this question. For maximum points, companies should provide an explanation of why they do not have a target and provide a quantitative forecast (i.e. percentage increase or emissions mass figure) of their emissions over the next five years. Fewer points are available where the forecast is qualitative.
- **Performance Score:** Companies that do not have a target will not be awarded performance points for this set of questions.

Q3.2: Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

Please select “Yes” or “No” from the drop down menu provided in response to this question. If you select “Yes” you will be directed to question 3.2a where you will be asked to provide further information (see below); if you respond “No” you will move on directly to question 3.3. 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.

Only goods and services that directly enable reductions should be considered in this response. For example, if your product or service enables your customer to achieve emissions reductions you should answer “yes”, however if your product or service enables another company to develop a product or service that enables their customers to reduce their emissions, without affecting their own emissions, you should answer “no”.

- **Disclosure Score:** Points are awarded for selection of a drop down menu option.
- **Performance Score:** There are no performance points available for this question.

Q3.2a: Please provide details

This question only appears if you select “Yes” in response to question 3.2.

Please respond to this question using the text box provided. Buttons are available at the top of the text box to format your response as necessary, however, please note that when copying from another document into the ORS, the formatting is not retained. It is preferable, although not essential, that your response is formatted to distinguish between the points set out below. The text box has a character limit of 5,000. In responding to this question, please provide details on the following points:

- i. How the emissions are/were avoided;
- ii. An estimate of the amount of emissions that are/were avoided over time, e.g. x metric tonnes CO₂e per year with a 2007 baseline; x metric tonnes per year over a period of 10 years (2003-2013);
- iii. The methodology, assumptions, emission factors and global warming potentials (if you have expressed your carbon saving figure in CO₂e) used for your estimations;
- iv. Whether you are considering generating CERs or ERUs within the framework of CDM or JI (UNFCCC).

- **Disclosure Score:** To qualify for disclosure points companies must complete points i to iv above. Maximum points are available if all the data points are provided.
- **Performance Score:** There are no performance points associated with this question.

Q3.3: Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and implementation phases)



Please respond to this question by selected “Yes” or “No” from the drop down menu provided. If you select “Yes” you will be directed to questions 3.3a, 3.3b and 3.3c; if you select “No” you will be directed to question 3.3d.

It is acknowledged that diverse companies often have large number of emissions reduction initiatives operating over varying time periods and scales. Companies 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).

As a result of changes introduced in Scope 2 accounting this year, you can now reflect any renewable energy purchasing policies as a component of emission reduction activities. Please bear in mind, however, that if you are already buying renewable energy instruments and accounting them as a zero emission factor, then emission reductions activities can only be achieved as “additional purchases” to what you are already doing. Therefore, emission reductions activities are established by comparing what you have done in the previous year and what you are proposing to do for next year(s).

Measures taken to reduce Scope 3 emissions may be reported here.

- Disclosure Score: Points are awarded for selection of one of the drop down menu options.
- Performance Score: There are no performance points associated with completion of this question, but performance points for 3.3b are dependent on the selection made at 3.3.

Q3.3a: Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

This question only appears if you select “Yes” in response to question 3.3.

You are requested to respond to this question using the table provided in the ORS and reproduced below. Both columns accept numeric entries only. Where there are no projects in a stage of development, please state zero.

The purpose of this question is to demonstrate the systematic evaluation of emission reduction initiatives. Companies should enter the total number of projects in each stage of implementation in column 2 and the aggregate estimated annual emissions savings in metric tonnes CO2e in column 3 for all projects in those stages marked with an asterisk (to be implemented, implementation commenced, and implemented). It is acknowledged that the CO2e savings will be an estimate. More detail is requested on individual activities (or programs of activity) that have been implemented in the reporting year in the subsequent question. Projects do not need to relate to specific targets disclosed in the questionnaire.

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*		
Not to be implemented		

- Disclosure Score: Disclosure points will be available where “number of projects” is completed for all stages of development. For rows marked with an asterisk, and where the number of projects is



not zero, total estimated tonnes CO2e saved should also be given.

- Performance Score: There are no performance points associated with this question

Q3.3b: For those initiatives implemented in the reporting year, please provide details in the table below

This question only appears if you select “Yes” in response to question 3.3.

You are requested to respond to this question in the table provided in the ORS, reproduced below. Note that this question only applies to initiatives that were implemented in the reporting year. Initiatives that were implemented in a previous reporting year should not be reported here.

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency – as specified in Q0.4)	Investment required (unit currency – as specified in Q0.4)	Payback period

To add more rows to the table, please use the ‘Add Row’ button to the bottom right.

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 where these activities have either been part of a defined program of emission reduction activities or where additional investment beyond standard maintenance/replacement has been made for the purposes of reducing emissions, should they be reported here. Initiatives do not need to relate to specific targets disclosed in the questionnaire.

Companies are asked to provide information on the return on any emissions reduction initiatives made. This should be done through completing columns 3 (annual monetary savings), 4 (investment required) and 5 (payback period). It should be noted however that not all emissions reduction initiatives carry with them a significant cost – many activities, 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 made column, and by selecting the payback of less than a year option (if this is the case).

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) please enter the additional (premium) costs and additional monetary savings associated with the lower emissions model (if applicable).

Guidance on responding to each of the columns is provided below:

- **Activity type**
 - Please select from one of the following options. Please note that these are broad categories only – more detailed descriptions should be entered into column 2:
 - Energy efficiency: Building fabric
also referred to as building shell or building envelope, e.g. insulation, maintenance program.

- Energy efficiency: Building services
 - e.g. building controls, HVAC, lighting, motors and drives, combined heat and power, etc.
- Energy efficiency: Processes
 - e.g. heat recovery, refrigeration, process optimization, fuel switch, compressed air, combined heat and power, waste water treatment, process water, machine replacement etc.
- Fugitive emissions reductions
 - e.g. agriculture methane capture, agriculture N2O reductions, landfill methane capture, oil/natural gas methane leak capture/prevention, refrigerant leakage reduction, etc.
- Low carbon energy purchase
 - the source could be biomass, fuel cells, geothermal, hydro, solar, solar hot water, biogas, etc. If low carbon energy purchases has been a component of your emission reduction activities please also report the other accompanying information in 10.1a and 11.4 and read the information provided in Box 14.
- Low carbon energy installation
 - this includes installation of clean energy generating facilities at your own site or at others on behalf of your clients.
- Process emissions reductions
 - initiatives to reduce process emissions from manufacturing, e.g. new equipment, changes in operations, process materials selection, etc.
- Transportation: fleet
 - e.g. electric vehicle, fleet management program, fuel switch, hybrid vehicle, vehicle efficiency improvements.
- Transportation: use
 - e.g. business travel, commuting, shipping, etc.
- Product design
- Behavioral change
- Other
- **Description of activity**
 - This is an open text field, with a character limit of 2,400 characters. Please use this column to describe the activity you have undertaken or are planning to undertake. Please identify the nature of the activity; whether it is Scope 1, 2 or 3; whether it is voluntary or mandatory; and the expected lifetime of the initiative.
- **Estimated annual CO2e savings**
 - Enter the expected annual CO2e savings, in metric tonnes, occurring with the initiative in place. It is acknowledged that this figure is likely to be an estimate. Please enter a number of no more than 9999999999 and up to 2 decimal places. Where savings occur on a non-annual basis, please average out so that an annual figure can be provided.
- **Annual monetary savings (unit currency – as specified in Q0.4)**
 - Please 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 question 0.4 in the Introduction page and should be entered in full and without commas (e.g. one million should be entered as 1000000).



Where savings occur on a non-annual basis, please average out so that an annual figure can be provided. Values can be entered up to 9999999999999999 with no decimal places.

- **Investment required (unit currency – as specified in Q0.4)**
 - Please enter the total investment required for the initiative over its lifetime. The number entered should be appropriate to the currency selected in question 0.4 in the Introduction page and should be entered in full and without commas (e.g. one million should be entered as 1000000). Values can be entered up to 9999999999999999 with no decimal places.
- **Payback period**
 - 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/Monetary savings). Please select from one of the following options to describe the payback period for the initiative:
 - <1 year
 - 1-3 years
 - 4-10 years
 - 11-15 years
 - 16-20 years
 - 21-25 years
 - >25 years

For Electric Utility Sector Companies:

For electric utilities, activities to reduce emissions/energy use may include fuel switching at existing plants or investment in lower-emitting methods of generation. Please disclose this information if applicable.

- **Disclosure Score:** Points are awarded for completion of this question. To achieve any disclosure points, columns 1 and 2 must be completed. For maximum disclosure points, all columns should be completed.
- **Performance Score:** Points are available for actions which are being implemented, with additional points available for actions which have a carbon saving figure associated with them. Maximum points are reserved for actions which are explicitly stated as in the same scope as the targets you have disclosed under 3.1a or 3.1b.

Q3.3c: What methods do you use to drive investment in emissions reduction activities?

This question only appears if you select “Yes” in response to question 3.3.

Please respond to this question by completing the table in the ORS, reproduced below. It is intended to gather information on the ways in which capital is directed towards emissions reduction activities within the company, rather than the drivers for doing so, or the way in which activities are identified. If you utilize the copy from last year facility, please review your response to ensure that it is still appropriate to the reporting year and add any additional methods that you have employed.

Method	Comment
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 of 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	
--	--

You can choose more than one method by using the Add Row button at the bottom right of the table.

In the first column you should select the types of methods that you employ to help to channel funds towards emissions reduction activities; in the second column you can provide further detail and examples as necessary. Column 2 is a free text field and has a character limit of 2,400 characters. Box 7 demonstrates how Marginal Abatement Cost Curves (MACC) can assist with identifying the most cost effective emission reduction initiatives and, as such, direct investment.

- **Disclosure Score:** Points are awarded where a selection has been made in column 1; where “Other” is selected, details must be provided in column 2 to qualify for disclosure points.
- **Performance Score:** There are no performance points associated with this question.

Q3.3d: If you do not have any emissions reduction initiatives, please explain why not

This question only appears if you select “No” in response to question 3.3.

Please complete your answer in the text box provided, using no more than 5,000 characters. Please give a comprehensive answer to this question, explaining why your company is not taking action to reduce emissions.

- **Disclosure Score:** Points are awarded for completion of this question, with maximum points available where an increased level of detail that is specific to the company is given.
- **Performance Score:** Performance points are not awarded if a company does not have any emission reduction activities.

Box 7: 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.

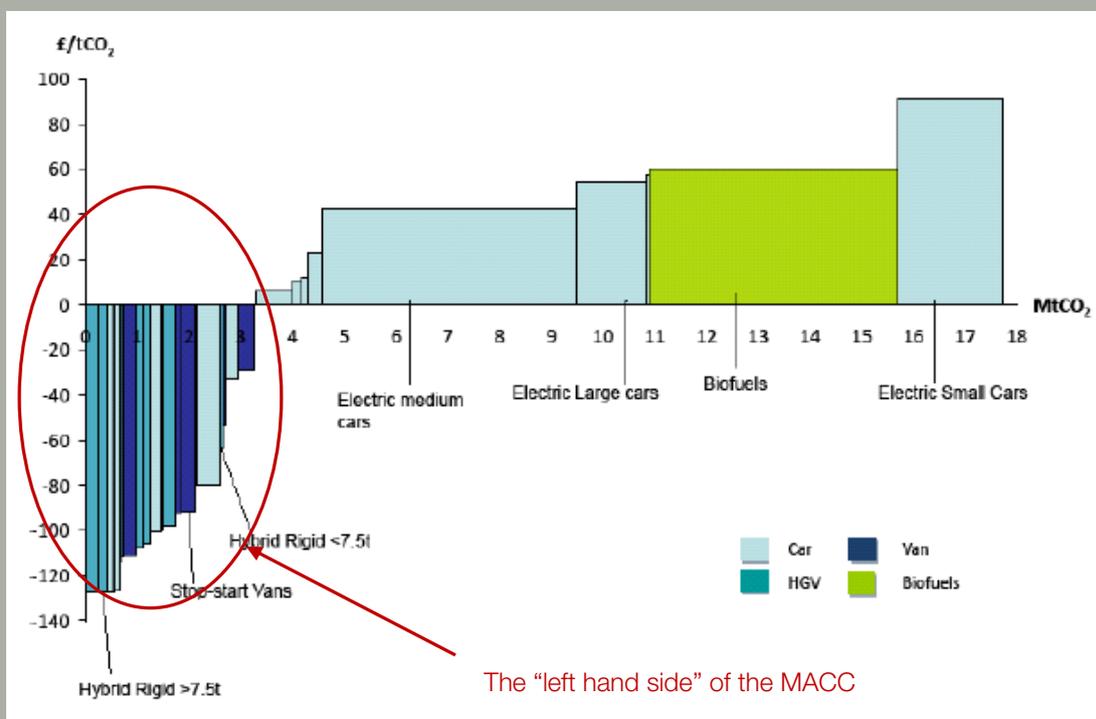
MACCs can be generated to evaluate options at any level of organization – from individual business divisions, to the overall business and to sectors and countries, evaluating individual projects, programs or policies.

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.

$$\text{MAC} = \frac{\text{Initial costs} - \text{savings generated}}{\text{GHG emissions saved}}$$

These are then arranged with the lowest costs (sometimes negative cost) on the left, increasing in cost to the right, creating the curve. An example taken from the UK Committee on Climate Change's "Building a UK Transport Supply-side Marginal Abatement Cost Curve" report (January 2008) is shown below. Although this is sector level rather than company level, the principle is the same.



Those projects/initiatives on the "left hand side" of the MACC are those 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 the bars extend above the line, positive costs are associated with the proposals. Here the MACC curve can be used to suggest the lowest cost options for achieving a particular target. Using the example above, savings of 9.5MtCO₂ can be made at costs of less than £40/tonneCO₂.

As with all evaluation methods, the accuracy of the MACC will depend on that of the input data.



4. Communications

General Guidance

Only one question is included in this section, and this asks about communication of your position on climate change and carbon emissions outside of your CDP response. Even where the relevant information is web based it is necessary to produce a static document to attach. This is because of the need to maintain a fixed response over time that can be accessed in full at any time in the future; a URL is necessarily dynamic and therefore cannot fulfill this requirement.

Key Changes from 2012

The drop down list for question 4.1 has been amended and additional guidance has been provided. A new question functionality has also been introduced, allowing attachments to be added directly to the relevant table columns.

Pre-population

None of the questions on this page are eligible for pre-population if you responded last year.

SME version

None of the questions on this page are included in the SME questionnaire.

Specific Question Guidance

Q4.1: Have you published information about your company’s response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Please use the table provided in the ORS (reproduced below) to identify your attachment.

Publication	Page/Section reference	Attach the document
Select from: No In mainstream financial reports (complete) In mainstream financial reports (underway) – previous year attached In mainstream financial reports (underway) – this is our first year In other regulatory filings (complete) In other regulatory filings (underway) – previous year attached In other regulatory filings (underway) – this is our first year In voluntary communications (complete) In voluntary communications (underway) – previous year attached In voluntary communications (underway) – this is our first year	Text box Identify the page(s) or section(s) of the report attached that refers to climate change and/or GHG emissions performance. If the whole documents relates to climate change or GHG, please state this.	Click on “Browse” to identify the attachment and then “Attach”.

If you wish to enter more than one report, please use the “Add row” button to the bottom right of the table.

Mainstream financial reports: CDP uses the Climate Change Reporting Framework (CCRF) definition of mainstream financial reports. CCRF defines mainstream financial reports as “annual reporting packages in which certain organizations are required to deliver their audited financial results under the corporate, compliance or securities laws of the territory or territories in which they operate”. For the full definition,



please see paragraphs 1.10-12 of the CCRF, which can be found at www.cdsb.net. It is acknowledged that, in some territories, multiple documents may meet this definition. Please attach only those which reference climate change information.

Other regulatory filings: These are reports which are required through regional or national legislation, but which do not fall under the definition of mainstream financial reports stated above. Examples include reports made under the AB32, ETS regulation submissions or Victorian Energy Efficiency Target (VEET) filings in Australia.

Voluntary communications: This should include optional sustainability/CSR reports or any other voluntary consumer facing publications, advertising, company websites, executive speeches and presentations.

The report should relate to the reporting year although it is acknowledged that it may not be published in the reporting year. Where reports are not ready for publication at the time of submission of your CDP response, select one of the options that indicate the report is “underway”. Where you can attach the previous year’s report to demonstrate that the information is routinely published in this way, select “... (underway) – previous year attached” and complete the remaining two columns of the table with regard to this report. Where this is the first year that you will have published information in this way, select “... (underway) – this is our first year” and leave the other two columns in the table blank. Where the publication is already available, select “... (complete)”.

To attach the document to column 3, click the “Browse” button to locate the document and then click the “Attach” button to attach it to the response. The document name will then appear in the column with an empty tick box beside it. To remove the attachment, tick this box and click on “Remove”.

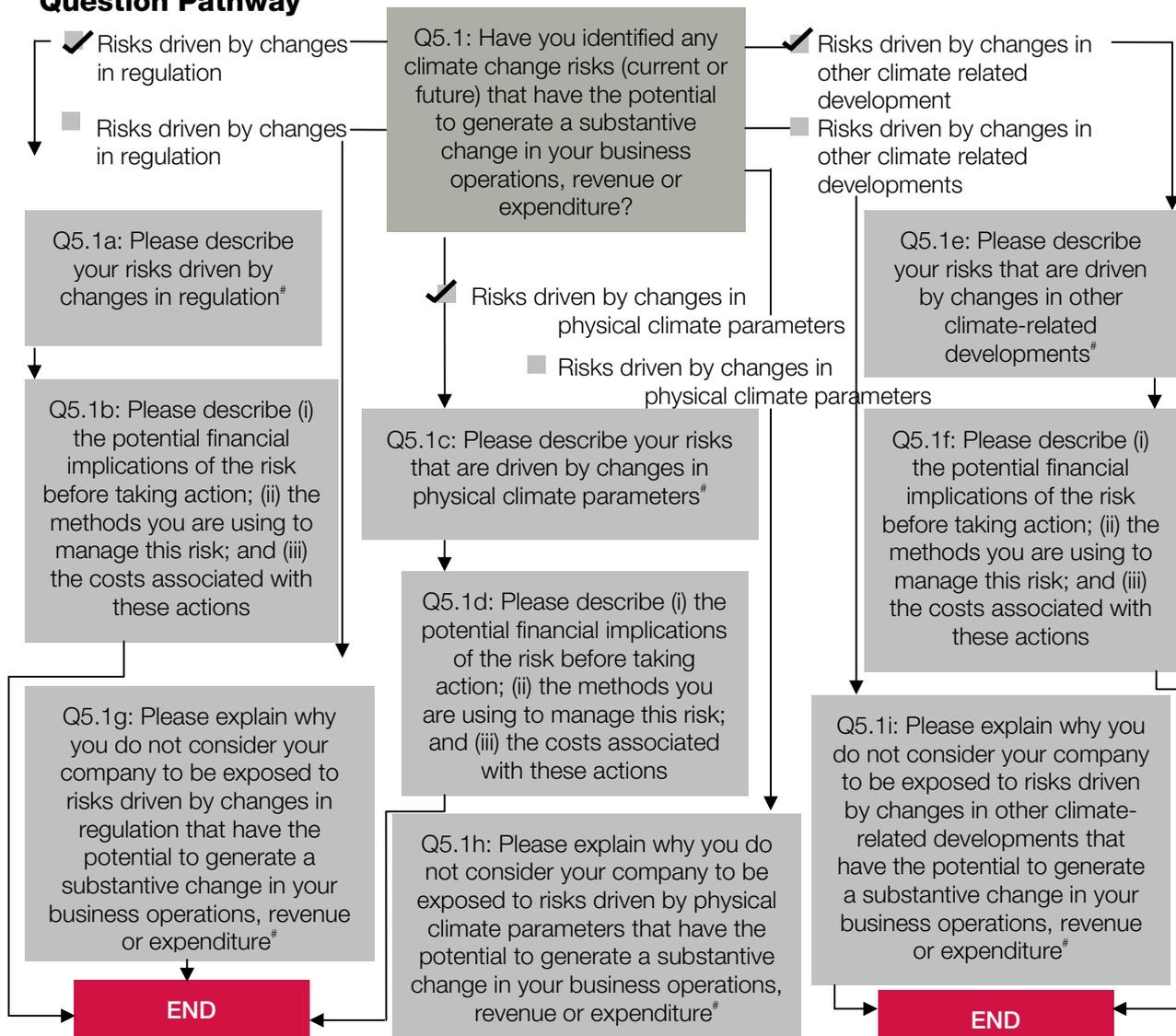
As noted above in the general guidance for this page, it is not possible to include URLs as evidence of reports. The CDP response needs to be complete over time and therefore **web links are not acceptable**. However, if this is the format for your reporting, you can provide the relevant snapshots/screenshots of the pages as the attachment. Also note that attached documents can be in languages other than English.

- **Disclosure Score:** All columns must be completed in a row and the attached file must match the description given in the “Publication” column. The page or section reference must refer to a section that mentions climate change or emission reduction actions unless this is your first year of publishing information in this way and you have selected the appropriate option in column 1.
- **Performance Score:** Performance points are available where the criteria given for the disclosure score are met. Maximum points are awarded for companies that cover climate change in their current or previous years’ mainstream financial reports, evidenced by an attachment.

Risks & Opportunities Module Guidance

5. Climate Change Risks

Question Pathway



Notes: #Questions included in the SME questionnaire

General Guidance

Many of the challenges you face when reporting on climate change issues are common to other aspects of corporate reporting, requiring you to provide statements about your prospective condition. Some organizations, particularly accountancy firms and their governing bodies, have published guidance about how to prepare statements that contain forward-looking information.

Before completing the questions covering risks you may wish to consult with your financial, legal, and/or compliance departments for advice on your company's general approach to the provision of forward looking statements and information concerning risks. Note that the questions relate to "inherent" risk and not the "residual" risk after management measures have been taken into account.

The process of identifying and prioritising risks is the subject of question 2.1 on the Strategy page of the information request. This page asks companies to describe the risks that they have identified where there is the potential for substantive changes in business operations, revenue or expenditure to arise. There is no need to report all risks identified – your response should focus on those which have the potential to generate a **substantive** change in your business operations, revenue or expenditure. The way in which risks are classified are common to all types of risk in this section and are described in Box 8 below. More details on the different types of risk are provided in the Specific Question Guidance.

Guidance for oil and gas sector companies, electric utilities and auto and auto component manufacturers

At the end of the sections of the guidance on the risks and opportunities questions, there is in many cases guidance specifically for companies in these sectors. This specifies issues that investor groups would particularly request that these sectors consider in answering these questions. If your company considers that an issue listed under "other opportunities" is related to regulation in your case and would be more appropriately considered under the "regulatory opportunities" question, please do so and do not be constrained by the risk and opportunity questions under which the issues are listed.

Key Changes from 2012

No question changes have been made

The drop down menu for risk drivers in question 5.1a has been updated to include "Renewable energy regulation"

The scoring methodology for this section has been re-worded to provide more precise definitions of the data points requested.

Pre-population

If you responded to CDP last year, questions 5.1, 5.1a, 5.1b, 5.1c, 5.1d, 5.1e, 5.1f, 5.1g, 5.1h and 5.1i on this page are eligible for pre-population. To take advantage of this function, click "copy from last year" prior to entering any data on the page.

SME version

Companies responding to the SME questionnaire are only requested to answer question 5.1 and questions 5.1a, c and/or e and 5.1g, h and/or i, whichever are relevant.

Box 8: Describing Risk

This box provides more detail on the different aspects of the description of risk. It should be noted that all risks should be considered as “**inherent**” risk, i.e. without taking into account any potential mitigation/management measures that have been or could be implemented.

Risk Driver – the risk driver describes the source of the risk and will depend on the risk type (regulatory, physical, other) chosen. More detail is provided in the Specific Question Guidance for the relevant risk types.

Potential Impact – the potential impact is the effect that the risk could have on your business. This could be through increased costs, decreased revenue or through more limited access to capital. A more detailed list of options is available in the ORS and is described in the Specific Question Guidance.

Timeframe – the timeframe refers to the time when you expect the risks are likely to materialise. It is acknowledged that risks further into the future are likely to have a higher degree of uncertainty associated with them. In this questionnaire time periods are defined as: Current; 1-5 years; 6-10 years; >10 years; or, Unknown.

Direct/Indirect – some risks will have a direct impact on your business, e.g. where sea level rise or storm surge events have the potential to impact your coastal facilities. However others will only affect your business indirectly, because they either affect your customers (which in turn affects their need for your product/services) or because it affects your supply chain (and therefore their ability to supply goods/services to you at an appropriate price). You will be asked to define whether your risks relate to Direct, Indirect (Supply chain) or Indirect (Client) impacts.

Likelihood of impact – the likelihood of the impact occurring, along with the magnitude (see below) are the building blocks of a risk/opportunity matrix – a common method of identifying and prioritising risk and opportunities. The likelihood refers to the probability of the impact to your business occurring, not of the climate event. For example, if the risk relates to a piece of new legislation which has already been prepared in draft form, the likelihood of the impact associated with that risk occurring will be relatively high. The terms used to describe likelihood are taken from the Intergovernmental Panel on Climate Change’s (IPCC) 2007 reports. They are associated with probabilities, indicating the percentage likelihood of the event occurring. It is not necessary for respondents to have calculated probabilities for the risks they are considering, however they can give an indication as to the meaning of the terms. The likelihood terms are: Virtually certain (greater than 99% probability); Very likely (greater than 90% probability); Likely (greater than 66% probability); More likely than not (greater than 50% probability); About as likely as not (between 33% and 66% probability); Unlikely (less than 33% probability); Very unlikely (less than 10%); Exceptionally unlikely (less than 1% probability); Unknown.

Magnitude of impact – the magnitude describes the extent to which the impact, if it occurred, would affect your business. This should consider the business as a whole and therefore the magnitude can reflect both the damage that can be caused and the exposure to that potential damage. For example, two companies may have identical facilities located on the coast in an area which is vulnerable to sea level rise. However if company A relies on that facility for 90% of its production capacity and company B relies on it for only 40% of its production capacity, the magnitude of a sea level rise impact on company A will be much higher. It is not possible to accurately define terms for magnitude as they will vary from company to company. For example, a 1% reduction in profits will have different effects on different companies depending on the profit margins they work on. Therefore companies are asked to determine magnitude on a qualitative scale of high, medium-high, medium, low-medium, low and unknown. Factors to consider include (a) the proportion of business units affected; (b) the size of the impact on those business units, and (c) the potential for shareholder or customer concern. An impact of relatively high magnitude could occur because of a large effect in one of these aspects, or small effects in all three combining to create a larger impact.

Specific Question Guidance

Q5.1: Have you identified any climate change risks (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Risks driven by changes in regulation
- Risks driven by changes in physical climate parameters
- Risks driven by changes in other climate-related developments

Tick all categories of risks that apply to your business. Risks can be:

- Currently being experienced or expected to arise in the future
- Already managed and therefore not expected to generate negative residual impacts (e.g. because of an insurance policy)
- Newly identified
- Risks which cannot be managed
- Well understood or with high levels of uncertainty with regard to the likelihood of the risk materialising and the extent to which it will impact the business

Regulatory risks arise from current and/or expected city, state, regional, national or global governmental policy related to climate change. Risks include, but are not limited to, the imposition of emissions limits, energy efficiency standards and carbon trading schemes. Further details are provided in the guidance for question 5.1a.

Physical risks may arise from dramatic extreme weather events or subtle changes in weather patterns. Further details are provided in the guidance for question 5.1c.

Other climate-related risks include reputation, changing consumer behavior, induced changes in human and cultural environments, fluctuating socio-economic conditions, increasing humanitarian demands, amongst others. Further details are provided in the guidance for question 5.1e.

For the purposes of this response, the risks identified should only be those which may currently or potentially pose inherently substantive business impacts, regardless of whether or not the company has taken action to mitigate the risk(s). Please note that there is no need to report all risks, covering only substantive risks identified will be sufficient for responding to questions on this page.

The selections made in response to this question determine the questions that will appear on the remainder of the ORS page. Note that if you enter details in the subsequent questions and then change your selection at question 5.1, your data will be lost.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- **Disclosure Score:** There are no disclosure points awarded for completion of this question.
- **Performance Score:** There are no performance points awarded for completion of this question.

Q5.1a: Please describe your risks driven by changes in regulation

This question only appears if you tick "Risks driven by changes in regulation" in answer to question 5.1.



You are asked to complete your response in the table provided in the ORS. The table is reproduced below and guidance on completing the columns follows. If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact

You can make multiple entries into the table, using the “Add row” button to the bottom right.

- **ID**

- Where companies have multiple risks in any given risk category (regulatory, physical or other), they should enter a unique ID in this field to identify that target in subsequent questions. The ID can be up to 5 characters long and using letters and/or numbers. If companies are not reporting multiple risks they can leave this column blank.

- **Risk driver**

See Box 8. Select from the following options:

- International agreements - This can include internationally binding agreements negotiated within the frame of United Nations international conventions (e.g. Kyoto Protocol) or any other internationally recognized protocol
- Air pollution limits - A type of regulation that imposes specific air pollution concentration limits on emissions (command and control); an example is the Oregon Clean Air Act Implementation Plan
- Carbon taxes - A type of regulation that imposes specific economic incentives for polluters. The control of the pollutant is achieved by the internalization of its cost (in the form of a tax) by the regulated entity; examples include the Carbon Tax in France and the UK Climate Change Levy (CCL).
- Cap and trade schemes - Regulation that caps the amounts of release of a product/pollutant. Also known as emissions trading schemes. Permits are issued to trade in the ability to release the product/pollutant. Acts as an economic incentive by creating a specific market where the permits are traded. Examples include the EU Emissions Trading System, South Korea Emissions Trading Scheme and the Japan Mandatory Cap and Trade Scheme.
- Emission reporting obligations - Regulations that demand the disclosure of data to authorities and/or to the public. Includes pollutant release and transfer registers. May include energy reporting obligations as well as emissions reporting. Examples include the Australian National Greenhouse and Energy Reporting Act 2007 and the New Mexico Mandatory GHG Reporting Regulation.
- Fuel/energy taxes and regulations - Regulations aimed mainly at the consumption of fuel and/or other energy types but not specifically GHG emissions; an example is the UK CRC Energy Efficiency Scheme.
- Product efficiency regulations and standards - Regulations or standards that require specific efficiency in the production or commercialization of a given product, e.g. buildings regulations concerning energy efficiency such as the EU Energy Performance of Buildings Directive.
- Product labelling regulations and standards - Regulations or standards that impose specific labelling requirements on products, e.g. EU directive on electricity appliance labelling.

- Voluntary agreements - Voluntary agreements are a particular type of environmental instrument where contracts between state authorities and companies are agreed and specific targets are negotiated between the parties; an example is the UK Climate Change Agreements.
 - General environmental regulations, including planning - Include wider regulations, such as Environmental Protection Acts (or Laws), planning and other regulations. Examples include the Environmental Protection Law of the People's Republic of China and the UK Climate Change Act.
 - Renewable energy regulation – National and regional renewable energy policy targets or renewable energy support policies are some of the principal drivers in the growth of renewable energy use.
 - Uncertainty surrounding new regulation – Although regulation can bring with it risks to business activities through additional costs needed for compliance, an uncertainty surrounding regulations can create difficulties in developing new products or initiatives for fear of future incompatibilities.
 - Lack of regulation – As above, the lack of a clear policy framework can create risks with regard to future direction and an unbalanced market for business to operate in.
 - Other regulatory drivers – If the regulatory drivers you experience are not included in this list, select this option and provide further details in the description column.
- **Description**
 - Use this text field to provide further contextual information on the risk driver, including providing more detail on the exact regulation and any notable geographic/regional examples. Please use no more than 2,400 characters in your answer.
- **Potential impact**

See Box 8. Select from the following options

 - Increased operational cost – an increase in the day to day costs of running the business
 - Increased capital cost – an increase in the capital expenditure needed to maintain the company's competitiveness, e.g. it might be needed to buy equipment more frequently which implies a higher capital expenditure or the business might need to relocate to a new location which could imply investment in land, building and construction
 - Reduced demand for goods/services – a decline in customer demand for your goods/services
 - Reduction/disruption in production capacity – an inability to maintain maximum production levels
 - Reduction in capital availability – you may need to do certain investments but you do not have access to capital or you only have access to capital with higher interest rates
 - Reduced stock price (market valuation) – declining interest from investors in your goods/services
 - Inability to do business – barriers to market participation may arise, for example, an insurance company may find that they are unable to offer insurance policies due to extremely high levels of uncertainty
 - Wider social disadvantages – disadvantages which lie outside of the core financial objectives of a company
 - Other, please specify
- **Timeframe**
 - See Box 8. Select from the following options:

- Current
- 1-5 years
- 6-10 years
- >10 years
- Unknown
- **Direct/Indirect**
 - See Box 8. Select from the following options:
 - Direct
 - Indirect (Supply chain)
 - Indirect (Client)
- **Likelihood**
 - See Box 8. Select from the following options:
 - Virtually certain
 - Very likely
 - Likely
 - More likely than not
 - About as likely as not
 - Unlikely
 - Very unlikely
 - Exceptionally unlikely
 - Unknown
- **Magnitude of impact**
 - See Box 8: Select from the following options:
 - High
 - Medium-high
 - Medium
 - Low-medium
 - Low
 - Unknown
- **Disclosure Score:** Columns 2-8 must be completed to achieve maximum disclosure points. Where the description (column 3) gives an increased level of detail that is specific to the company, maximum points can be achieved.
- **Performance Score:** There are no performance points for this question.

Q5.1b: Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk and (iii) the costs associated with these actions

This question only appears if you tick "Risks driven by changes in regulation" in answer to question 5.1.

Please enter your response to this question in the text box provided using no more than 7,000 characters. A toolbar is available at the top of the text box to allow formatting of the response. Please use the ID

defined in question 5.1a to clearly identify which risks you are referring to and use the formatting tools to identify the subsections of the question you are responding to. You should complete items (i), (ii) and (iii) for each of the regulatory risks you have identified in response to question 5.1a. If your description relates to all of the risks identified, please state this unambiguously. Details of how to respond to each of these items are provided in Box 9.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- **Disclosure Score:** A company must have completed column 2 in 5.1a to qualify to score disclosure points for this question. Scorers must be able to identify which risk is being referred to when scoring this question. If scorers cannot identify the risk under discussion, points will not be awarded. If the description applies to all risks, please state this clearly.

In describing the financial implications of the risk and the cost of methods or actions to manage the risk, more points are available for numerical financial descriptions (open or closed ranges or % relative to a stated or publicly available figure). If there are no financial implications or costs to managing the risk, this should be made clear. Other descriptions given, which indicate the scale and direction of the financial implication, are worth a smaller number of points.

In describing the methods or actions used to manage the risk, companies should make reference to the specific activities, projects or products/services which are aiming to manage this risk.

- **Performance Score:** Points are available if the actions to manage the risk are being implemented rather than being in the planning stage.

For Oil and Gas Sector Companies

In answering the questions above, please consider the impact of national and international emissions targets and how those could affect demand for oil and gas products. Will they lead to your company having a less carbon-intensive fuel mix? Will fuel efficiency standards affect the demand for fuel? Are there other instances where demand is likely to reduce due to regulation?

Is your company affected by other types of regulation such as restrictions on flaring or by requirements for a certain level of climate-related performance in order to receive permission to operate and/or as a condition of accessing new oil & gas resources e.g. a requirement for carbon sequestration?

Companies are encouraged to explain how their portfolio of reserves is evolving in response to these drivers.

For Electric Utility Sector Companies

Electric utilities are asked to consider among other issues:

- *how national and international targets on demand management might affect demand for electricity;*
- *the impact of related policies such as building regulations specifying more energy-efficient buildings;*
- *policies to increase renewable electricity supply or to support developments that may result in GHG emission reductions, e.g. CO₂ capture and storage, clean coal technologies and energy storage;*



- the impact of any emissions trading schemes and any emission reduction targets you have set or with which you have to comply, including the analysis of possible scenarios of their effect on the company;
- the effect on wholesale and retail power prices of carbon prices in the different markets in which you operate and the extent to which carbon prices are passed through, or may in the future be passed through, into electricity prices in the markets, based on current and anticipated regulatory requirements.

For Auto and Auto Component Manufacturers

Please consider the financial and strategic implications of current and planned national, regional, and international policies for increasing automobile fuel efficiency and developing “clean” engines for each of the markets in which you operate. You should also consider how other related environmental policies, such as regulations and standards regarding air quality, use of alternative fuels and sustainable mobility could further impact your business.

Specifically, you should take into account how climate change policy could impact you in terms of sales, the financial cost of any loss or potential loss of market share, additional costs of complying with regulation and, if applicable, how you have or will pass increased costs down the value chain.

Box 9: Financial Implications and Actions

Under financial implications you are asked to provide quantitative estimates of the inherent financial impacts of the risks before taking into consideration any controls you may have in place to mitigate the impacts. An example would be the cost of destruction of facilities from extreme weather before taking into consideration how much insurance coverage you have. It is acknowledged that these will be estimates.

The methods you are using or plan to use to manage the risk could include diversification of product/service offering, research and development in new product lines or lobbying of decision makers. In all cases please identify how this action has affected (or is expected to affect) the likelihood and/or magnitude of the risk (i.e. the residual risk) and over what timeframe the risk is expected to or has been reduced.

Finally, please identify the costs associated with the management actions you have described and whether they are annual (and if so, how many years they will be incurred) or capital costs. Where there is no additional cost for action, please explicitly state this is the case. Where the cost is integrated into existing budgets, please provide some estimate of the scale of those costs.

Q5.1c: Please describe your risks that are driven by change in physical climate parameters

This question only appears if you tick “Risks driven by changes in physical climate parameters” in answer to question 5.1.

You are asked to complete your response in the table provided in the ORS. The table is reproduced below and guidance on completing the columns follows. If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact

You can make multiple entries into the table, using the “Add row” button to the bottom right.

- **Risk driver**

See Box 8 on risk drivers, and Box 10 (below) on physical climate change. Select from the following options:

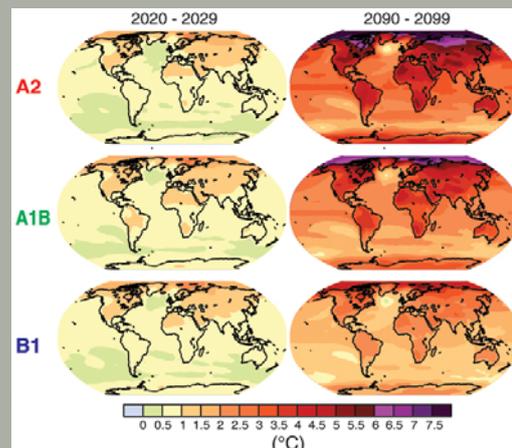
- Change in mean (average) temperature
 - Change in temperature extremes
 - Change in mean (average) precipitation
 - Change in precipitation pattern
 - Change in precipitation extremes and droughts
 - Snow and ice
 - Sea level rise
 - Tropical cyclones (hurricanes and typhoons)
 - Induced changes in natural resources
 - Uncertainty of physical risks – many physical changes are still considered speculative as the potential problems are interlinked. In a business context uncertainty can cause difficulties for forward planning and investment.
 - Other physical climate drivers – select this option if the type of physical climate driver you are experiencing or expect to experience is not included in the list above, and provide further details in the description column. Note that other types of risk are also included under regulatory risk (question 5.1a) and other climate related developments (question 5.1e).
- **Description**
 - Use this text field to enter further details on the risk driver, e.g. the nature and location of the physical effect concerned. Please use no more than 2,400 characters in your answer.
 - **Potential impact; Timeframe; Direct/Indirect; Likelihood; Magnitude of impact**
 - See Box 8 and guidance for question 5.1a
- **Disclosure Score:** Columns 2-8 must be completed to achieve maximum disclosure points. Where the description (column 2) gives an increased level of detail that is specific to the company, maximum points can be achieved.
 - **Performance Score:** There are no performance points associated with this question.

Box 10: Physical Climate Change

The [Fourth Assessment Report \(AR4\) of the Intergovernmental Panel on Climate Change \(IPCC\)](#) presents the results of an extensive climate modelling effort to make predictions of changes in the global climate based on a range of development/emissions scenarios. The text below summarises the changes in the global climate system expected to develop during the current century based on this report.

Change in mean (average) temperature:

Increases in global mean surface air temperature are expected to continue over the 21st century. Average warming for the period 2011-2030 is predicted to be between +0.64°C and +0.69°C, compared with the period 1980-1999; this increases by up to +1.8°C by mid century and potentially as high as +6.4°C by the end of the century. Greatest temperature increases are expected over land (roughly twice the global average temperature increase) and large regional variability exists as shown in the adjacent figure (Figure 3.2: AR4 Synthesis Report showing the multi-model average projected surface temperature changes for the early and late 21st century time periods for three development/emissions scenarios).



Change in temperature extremes: It is very likely that heat waves will be more intense, more frequent and longer lasting in a future warmer climate and cold episodes are projected to decrease significantly. Almost everywhere, daily minimum temperatures are projected to increase faster than daily maximum temperatures, leading to a decrease in diurnal temperature range. Decreases in frost days are projected to occur almost everywhere in the middle and high latitudes.

Change in mean (average) precipitation: For a future warmer climate, the current generation of models indicates that precipitation generally increases in the areas of regional tropical precipitation maxima (such as the monsoon regimes) and over the tropical Pacific in particular, with general decreases in the subtropics, and increases at high latitudes. Globally, averaged mean water vapour, evaporation and precipitation are projected to increase. However it should be noted that there is more inter-model variability in predicting precipitation compared with temperature changes.

Change in precipitation patterns: Predicted changes in mean precipitation have the potential to mask changes in patterns of precipitation which could be argued to be more important than the overall change. For example, in areas where mean precipitation decreases (most subtropical and mid-latitude regions), precipitation intensity is projected to increase but there would be longer periods between rainfall events. Inter-annual variability of the Asian monsoon is also projected to increase.

Change in precipitation extremes and droughts: Intensity of precipitation events is projected to increase, particularly in tropical and high latitude areas that experience increases in mean precipitation. There is a tendency for drying of the mid-continental areas during summer, indicating a greater risk of droughts in those regions. There are complications with predicting future monsoonal patterns however current expectations are for an increase in the Asian, West African (in part) and Australian monsoons and decrease in the Mexican and Central American monsoon.

Snow and Ice: As the climate warms, snow cover and sea ice extent decrease; glaciers and ice caps lose mass owing to a dominance of summer melting over winter precipitation increases. There is a

projected reduction of sea ice in the 21st century in both the Arctic and Antarctic. The projected reduction is accelerated in the Arctic, where some models project summer sea ice cover to disappear entirely in the latter part of the 21st century. Widespread increases in thaw depth over much of the permafrost regions are projected to occur in response to warming over the next century.

Sea level rise: Sea level is projected to rise by up to an average of 0.59 m by the end of the century. Thermal expansion is the largest component, contributing 70 to 75% of this with glaciers, ice caps and the Greenland Ice Sheet also projected to contribute positively to sea level. However, it is likely that the mean increase will mask substantial geographical variability. Furthermore these projections do not take into account further potential accelerations of some Greenland outlet glaciers and West Antarctic ice streams which could substantially increase current sea level rise projections.

Changes in tropical cyclones (hurricanes and typhoons): Results from embedded high-resolution models and global models project a likely increase of peak wind intensities and increased near-storm precipitation in future tropical cyclones. Most recent published modelling studies investigating tropical storm frequency simulate a decrease in the overall number of storms, though there is less confidence in these projections and in the projected decrease of relatively weak storms in most basins, with an increase in the numbers of the most intense tropical cyclones.

Induced changes in natural resources: As the physical climate parameters listed above change they interact and induce changes in natural resources such as crops, forestry and insect vectors, for example causing changes in growing seasons, and species distributions.

Q5.1d: Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk and (iii) the costs associated with these actions

This question only appears if you tick "Risks driven by changes in physical climate parameters" in answer to question 5.1.

Please enter your response to this question in the text box provided using no more than 7,000 characters. A toolbar is available at the top of the text box to allow formatting of the response. Please use the ID defined in question 5.1c to clearly identify which risks you are referring to and use the formatting tools to identify the subsections of the question you are responding to. You should complete items (i), (ii) and (iii) for each of the physical risks you have identified in response to question 5.1c. If your description relates to all of the risks identified, please state this unambiguously. Details of how to respond to each of these items are provided in Box 9 above.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- **Disclosure Score:** A company must have completed column 2 in 5.1c to qualify to score disclosure points for this question. Scorers must be able to identify which risk is being referred to when scoring this question. If scorers cannot identify the risk under discussion, points will not be awarded. If the description applies to all risks, please state this clearly.

In describing the financial implications of the risk and the cost of methods or actions to manage the risk, more points are available for numerical financial descriptions (open or closed ranges or % relative to a stated or publicly available figure). If there are no financial implications or costs to managing the risk, this should be made clear. Other descriptions given which indicate the scale and direction of the financial implication are worth a smaller number of points.



In describing the methods or actions used to manage the risk, companies should make reference to the specific activities, projects or products/services which are aiming to manage this risk

- **Performance Score:** Points are available if the actions to manage the risk are being implemented rather than being in the planning stage.

For Oil and Gas Sector Companies

Please consider how extreme weather events have affected or may affect future operations including specific information on changing insurance costs. Will rising sea levels affect any coastal operations? Will worsening water shortages affect operations in areas of water scarcity?

Where the physical risks faced by reserves/other assets are different, companies are encouraged to insert a new line for each type of risk. Select the category of risk in “Risk driver”. In the “Description” column, give further information on the physical risk faced and list the country and the value of assets or reserves (in BOE) that country that are affected by the risk selected.

Companies are encouraged to give as much detail as permitted by the regulation in the country where the reserves are located or the listing rules or statutes under which the company operates. If these issues affect the disclosure that can be made, please explain this within the “Description” column.

Companies are encouraged explain how their portfolio of reserves is evolving in response to these drivers.

For Electric Utility Companies

Electric utilities are asked to specifically consider:

- *how extreme weather events have affected or may affect generating capacity, production, transmission and distribution;*
- *the impact of flooding, drought, heat waves or storms on hydroelectric plants, water-cooling systems, wind farms, etc;*
- *how long-term changes in temperature have affected or may affect peak load, seasonal fluctuations in demand or impact network carrying capacity.*
- *measures in place for dealing with changing weather conditions e.g. insurance, hedging, investments in new technologies.*

Q5.1e: Please describe your risks that are driven by changes in other climate-related developments

This question only appears if you tick “Risks driven by changes in other climate-related developments” in answer to question 5.1.

You are asked to complete your response in the table provided in the ORS. The table is reproduced below and guidance on completing the columns follows. If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact

You can make multiple entries into the table, using the “Add row” button to the bottom right.

- **Risk driver**

See Box 8. Select from the following options:

- o Reputation – there are potential impacts associated with negative perceptions experienced by the public (including lobby groups) as well as suppliers and customers around an organization’s carbon performance
 - o Changing consumer behaviour – climate change can induce changes in customer preferences for products/services
 - o Induced changes in human and cultural environment – for example, migration and cultural changes
 - o Fluctuating socio-economic conditions – changes in social and economic prosperity changing a local or regional scale in response to regulatory or physical climate impacts
 - o Increasing humanitarian demands – as climate change effects start to become evident, in particular in the developing world, there is the potential for funds to be diverted to address humanitarian needs
 - o Uncertainty in social drivers – it may become difficult to operate effectively under the uncertainty surrounding the reputational, behavioural and socio-economic risks listed above.
 - o Uncertainty in market signals – as markets respond to climate change impacts and predictions, volatility can be induced
 - o Other drivers – select other if you experience any other risk driver that is not listed above and is not a result of changes in regulation or physical climate, and provide further details in the description column.
- **Description**
 - o Use this text field to enter further details on the risk driver, e.g. the exact nature and location of the effect concerned. Please use no more than 2,400 characters in your answer.
 - **Potential impact; Timeframe; Direct/Indirect; Likelihood; Magnitude of impact**
 - o See Box 8 and guidance for question 5.1a
- **Disclosure Score: Columns 2-8 must be completed to achieve maximum disclosure points. Where the description (column 2) gives an increased level of detail that is specific to the company, maximum points can be achieved.**
 - **Performance Score: There are no performance points associated with this question.**

Q5.1f: Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk and (iii) the costs associated with these actions

This question only appears if you tick “Risks driven by changes in other climate-related developments” in answer to question 5.1.

Please enter your response to this question in the text box provided using no more than 7,000 characters. A toolbar is available at the top of the text box to allow formatting of the response. Please use the ID defined in question 5.1e to clearly identify which risks you are referring to and use the formatting tools to identify the subsections of the question you are responding to. You should complete items (i), (ii) and (iii) for each of the risks you have identified in response to question 5.1e. If your description relates to all of the risks identified, please state this unambiguously. Details of how to respond to each of these items are provided in Box 9 above.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- **Disclosure Score:** A company must have completed column 2 in 5.1e to qualify to score disclosure points for this question. Scorers must be able to identify which risk is being referred to when scoring this question. **If scorers cannot identify the risk under discussion, points will not be awarded.** If the description applies to all risks, please state this clearly.

In describing the financial implications of the risk and the cost of methods or actions to manage the risk, more points are available for numerical financial descriptions (open or closed ranges or % relative to a stated or publicly available figure). If there are no financial implications or costs to managing the risk, this should be made clear. Other descriptions given which indicate the scale and direction of the financial implication are worth a smaller number of points.

In describing the methods or actions used to manage the risk, companies should make reference to the specific activities, projects or products/services which are aiming to manage this risk.

- **Performance Score:** Points are available if the actions to manage the risk are being implemented rather than being in the planning stage.

For Oil and Gas Sector Companies

You should consider the potential for changing consumer behaviour as awareness increases about the effect of fossil fuels on the climate and the relative carbon intensities of different fuels, and as efforts increase to reduce energy consumption.

Please also consider the effect of increased competition from renewable energy and from the commercialisation of hybrid and fully electric vehicles.

For Auto and Auto Component Manufacturers

In answering the questions above, you are asked to consider the impact of higher fuel costs on demand and sales mix and the implications for sales volumes, operating margins and company reputation.

Actions on increasing fuel economy and reducing GHG emissions should be included in 5.1f. These may include:

- *research and development investments;*
- *mass production of cleaner technologies e.g. hybrids, electric cars, fuel cells (please include timelines);*
- *alternative business models e.g. car rental, car sharing, 2/3 wheelers;*
- *partnerships between car manufacturers, equipment manufacturers and energy providers, e.g. oil and gas companies, electricity producers.*

You could set your actions into the context of your company's targets at a group or, where relevant, for specific markets for GHG emissions per unit distance or for fuel economy. This could also form part of your answer to 2.2a on strategy.

Q5.1g: Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

This question only appears if you do not tick "Risks driven by changes in regulation" in answer to question 5.1.

Please respond to this question in the text box provided in the ORS using no more than 5,000 characters. If required, the toolbar at the top of the text box allows you to format your response.

You are requested to state the risks considered, how far into the future they have been considered, giving a date if appropriate, and the specific geographic areas considered. If no risks have been identified, you should state this unambiguously and explain why regulatory risks are not relevant to your business.

If risks have been identified, you should explain why the risks are not considered to have the potential to generate a substantive change in your business operations, revenue or expenditure. Possible reasons might be that the risk is considered small, or is likely to occur very far into the future or will materialise slowly allowing for adaptation within existing business processes.

While information that relates to your company's sector in general is useful, information specific to your company is preferred. If your company is completely typical of its sector in relation to this category of risks and therefore it is not possible to give company-specific information, this should be clearly stated.

If you consider that you do face risks with the potential to generate substantive changes in your business operations, revenue or expenditure but have taken action to mitigate them, then you should tick the box at question 5.1 and answer the subsequent questions on those inherent risks rather than this question.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- **Disclosure points:** Answers that cover all of the points given in the guidance will score maximum points. More points will be allocated for explanations which are supported by company specific information, or if your company is typical of its sector, sector specific information.
- **Performance points:** There are no performance points for this question.

Q5.1h: Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

This question only appears if you do not tick "Risks driven by changes in physical climate parameters" in answer to question 5.1.

Please respond to this question in the text box provided in the ORS using no more than 5,000 characters. If required, the toolbar at the top of the text box allows you to format your response.

You are requested to state the risks considered, how far into the future they have been considered, giving a date if appropriate, and the specific geographic areas considered. If no risks have been identified, you should state this unambiguously and explain why risks driven by physical climate parameters are not relevant to your business.

If risks have been identified, you should explain why the risks are not considered to have the potential to generate a substantive change in your business operations, revenue or expenditure. Possible reasons might be that the risk is considered small, or is likely to occur very far into the future or will materialise slowly allowing for adaptation within existing business processes.

While information that relates to your company's sector in general is useful, information specific to your company is preferred. If your company is completely typical of its sector in relation to this category of risks and therefore it is not possible to give company-specific information, this should be clearly stated.

If you consider that you do face risks with the potential to generate substantive changes in your business operations, revenue or expenditure but have taken action to mitigate them, then you should tick the box at question 5.1 and answer the subsequent questions on those inherent risks rather than this question.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- Disclosure points: Answers that cover all of the points given in the guidance will score maximum points. More points will be allocated for explanations which are supported by company specific information, or if your company is typical of its sector, sector specific information.
- Performance points: There are no performance points for this question.

Q5.1i: Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

This question only appears if you do not tick “Risks driven by changes in other climate-related developments” in answer to question 5.1.

Please respond to this question in the text box provided in the ORS using no more than 5,000 characters. If required, the toolbar at the top of the text box allows you to format your response.

You are requested to state the risks considered, how far into the future they have been considered, giving a date if appropriate, and the specific geographic areas considered. If no risks have been identified, you should state this unambiguously and explain why other climate-related risks are not relevant to your business.

If risks have been identified, you should explain why the risks are not considered to have the potential to generate a substantive change in your business operations, revenue or expenditure. Possible reasons might be that the risk is considered small, or is likely to occur very far into the future or will materialise slowly allowing for adaptation within existing business processes.

While information that relates to your company’s sector in general is useful, information specific to your company is preferred. If your company is completely typical of its sector in relation to this category of risks and therefore it is not possible to give company-specific information, this should be clearly stated.

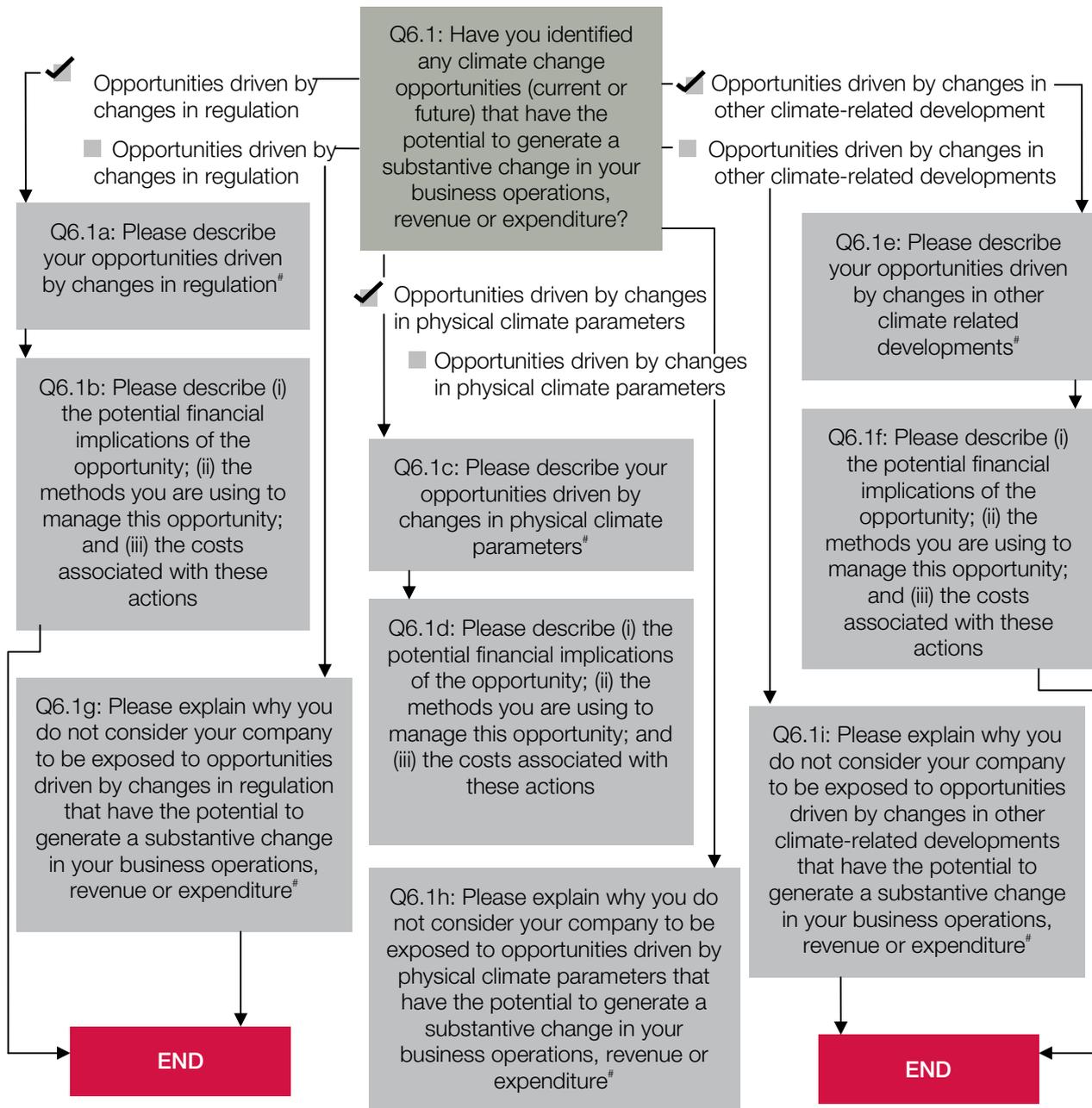
If you consider that you do face risks with the potential to generate substantive changes in your business operations, revenue or expenditure but have taken action to mitigate them, then you should tick the box at question 5.1 and answer the subsequent questions on those inherent risks rather than this question.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- Disclosure points: Answers that cover all of the points given in the guidance will score maximum points. More points will be allocated for explanations which are supported by company specific information, or if your company is typical of its sector, sector specific information.
- Performance points: There are no performance points for this question.

6. Climate Change Opportunities

Question Pathway



Notes: #Questions included in the SME questionnaire

General Guidance

Where a company faces risks associated with climate change (reported under question 5.1) it is possible that they may also experience opportunities. Both arise from changes in the operating environment for a company and as some changes can represent additional costs, others (or even the same changes) can present opportunities to exploit new markets or products.

Many of the challenges you face when reporting on climate change issues are common to other aspects of corporate reporting, requiring you to provide statements about your prospective condition. Some organizations, particularly accountancy firms and their governing bodies, have published guidance about how to prepare statements that contain forward-looking information.

Before completing the questions covering opportunities you may wish to consult with the financial, legal, and/or compliance departments for advice on your company's general approach to the provision of forward looking statements and information concerning opportunities.

The process of identifying and prioritising opportunities is the subject to question 2.1 on the Strategy page of the information request. This page asks companies to describe the opportunities that they have identified where there is the potential for substantive changes in business operations, revenue or expenditure to arise. The ways in which opportunities are classified are common to all types of opportunity in this section and are described in Box 11 below. More details on the different types of opportunity are provided in the Specific Question Guidance.

Box 11: Describing Opportunities

This box provides more detail on the different aspects of the description of opportunities

Opportunity Driver – the opportunity driver describes the source of the opportunity and will depend on the opportunity type (regulatory, physical, other) chosen. More detail is provided in the Specific Question Guidance for the relevant opportunity types.

Potential Impact – the potential impact is the effect that the opportunity could have on your business. This could be through reduced costs, increased revenue or through an enhanced access to capital. A more detailed list of options is available in the ORS and is described in the Specific Question Guidance.

Timeframe – the timeframe refers to the time when you expect the opportunities to materialise. It is acknowledged that opportunities further into the future are likely to have a higher degree of uncertainty associated with them. The time periods defined are the same as for risk, namely Current; 1-5 years; 6-10 years; >10 years; or, Unknown.

Direct/Indirect – some opportunities will be directly associated with your business, e.g. reduced heating costs. However others materialise indirectly, because they either affect your customers (which in turn then increases their need for your product/services) or because it affects your supply chain (and therefore allows you to purchase goods and services more easily or cheaply). You will be asked to define whether your opportunities relate to Direct, Indirect (Supply chain) or Indirect (Client) impacts.

Likelihood of impact – the likelihood of the impact occurring, along with the magnitude (see below) are the building blocks of a risk/opportunity matrix – a common method of identifying and prioritising risks and opportunities. The likelihood refers to the probability of the impact to your business occurring, not of the climate event. For example, if the opportunity relates to a piece of new legislation which has already been prepared in draft form, the likelihood of the opportunity occurring will be relatively high. As for opportunity, the terms used to describe likelihood are taken from the Intergovernmental Panel on Climate Change's (IPCC) 2007 reports. They are associated with probabilities, indicating the percentage likelihood of the event occurring. It is not necessary for respondents to have calculated probabilities for the opportunities they are considering, however they can give an indication as to the meaning of the



terms. The likelihood terms are: Virtually certain (greater than 99% probability); Very likely (greater than 90% probability); Likely (greater than 66% probability); More likely than not (greater than 50% probability);

About as likely as not (between 33% and 66% probability); Unlikely (less than 33% probability); Very unlikely (less than 10%); Exceptionally unlikely (less than 1% probability); Unknown

Magnitude of impact – the magnitude describes the extent to which the impact, if it occurred, would affect your business. This should consider the business as a whole and therefore the magnitude can reflect both the opportunity created and the extent to which it applies throughout the organization. The same potential factors that can affect the magnitude of the risk can affect the magnitude of the opportunity, namely (a) the proportion of business units affected; (b) the size of the impact on those business units, and (c) the potential for shareholder or customer response (positive). The terms are again the same as risk and are qualitative: High, Medium-high, Medium, Low-medium, Low and Unknown. It is for companies to determine what these terms represent in the context of their business activities.

Key Changes from 2012

No question changes have been made;

- The drop down menu for opportunity drivers in question 6.1a has been updated to include “Renewable energy regulation”;
- The scoring methodology for this section has been re-worded to provide more precise definitions of the data points requested.

Pre-population

If you responded to CDP last year, questions 6.1, 6.1a, 6.1b, 6.1c, 6.1d, 6.1e, 6.1f, 6.1g, 6.1h and 6.1i on this page are eligible for pre-population. To take advantage of this function, click “copy from last year” prior to entering any data on the page.

SME version

Companies responding to the SME questionnaire are only requested to answer question 6.1 and 6.1a, c and/or e and 6.1g,h and/or i, whichever is appropriate.

Specific Question Guidance

Q6.1: Have you identified any climate change opportunities (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Opportunities driven by changes in regulation
- Opportunities driven by changes in physical climate parameters
- Opportunities driven by changes in other climate-related developments

Tick all categories of opportunities that apply to your business. Opportunities can be:

- Currently being experienced or expected to arise in the future



- Being managed or newly identified
- Well understood or with high levels of uncertainty with regard to the likelihood of the opportunity materialising and the extent to which it will impact the business

Regulation on climate change related issues may present opportunities for your organization if it is better suited than its competitors to meet those regulations, or more able to help others to do so. Possible scenarios would include a company whose products already meet anticipated standards designed to curb emissions, those whose products will enable its customers to meet mandatory requirements or those companies who provide services assisting others in meeting regulatory requirements. Regulation may also create new markets such as emission trading markets leading to new opportunities. Further details are provided in the guidance for question 6.1a.

Physical changes related to climate change may present opportunities in a variety of ways. Reduced sea ice may allow access to new areas for vessels. Changing temperature and rainfall may extend growing seasons for farmers. Alternatively your organization may have goods and services that enable others to adapt to physical changes. Further details are provided in the guidance for question 6.1c.

Other climate-related opportunities include those posed by changes in consumer attitude or improved standing due to your organization’s stance or action on climate change. Further details are provided in the guidance for question 6.1e. Please note that there is no need to report all opportunities, covering only the substantive opportunities identified will be sufficient in responding to questions on this page.

The selections made in response to this question determine the questions that will appear on the remainder of this page. Note that if you enter details in the subsequent questions then change your selection at question 6.1, your data will be lost.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

Q6.1a: Please describe your opportunities that are driven by changes in regulation

This question only appears if you tick “Opportunities driven by changes in regulation” in answer to question 6.1.

You are asked to complete your response in the table provided in the ORS. The table is reproduced below and guidance on completing the columns follows. If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact

You can make multiple entries into the table, using the “Add row” button to the bottom right.

- **ID**
 - Where companies have multiple opportunities in any given opportunity category (regulatory, physical or other), they should enter a unique ID in this field to identify that target in subsequent questions. The ID can be up to 5 characters long and using letters and/or numbers. If companies are not reporting multiple opportunities they can leave this column blank.
- **Opportunity driver**

See Box 11. Select from the following options:

- International agreements – This can include internationally binding agreements negotiated within the frame of United Nations international conventions (e.g. Kyoto Protocol) or any other internationally recognized protocol.
 - Air pollution limits - A type of regulation that imposes specific air pollution concentration limits on emissions (command and control); an example is the Oregon Clean Air Act Implementation Plan.
 - Carbon taxes - A type of regulation that imposes specific economic incentives for polluters. The control of the pollutant is achieved by the internalization of its cost (in the form of a tax) by the regulated entity; examples include the Carbon Tax in France and the UK Climate Change Levy (CCL).
 - Cap and trade schemes - Regulation that caps the amounts of release of a product/pollutant. Also known as emissions trading schemes. Permits are issued to trade in the ability to release the product/ pollutant. Acts as an economic incentive by creating a specific market where the permits are traded. Examples include the EU Emissions Trading System, South Korea Emissions Trading Scheme and the Japan Mandatory Cap and Trade Scheme.
 - Emission reporting obligations - Regulations that demand the disclosure of data to authorities and/or to the public. Includes pollutant release and transfer registers and can include non-state regulatory obligations. May include energy reporting obligations as well as emissions reporting. Examples include the Australian National Greenhouse and Energy Reporting Act 2007 and the New Mexico Mandatory GHG Reporting Regulation.
 - Fuel/energy taxes and regulations - Regulations aimed mainly at the consumption of fuel and/or other energy types but not specifically GHG emissions; an example is the UK CRC Energy Efficiency Scheme.
 - Product efficiency regulations and standards - Regulations or standards that require specific efficiency in the production or commercialization of a given product, e.g. buildings regulations concerning energy efficiency such as the EU Energy Performance of Buildings Directive.
 - Product labelling regulations and standards - Regulations or standards that impose specific labelling requirements on products, e.g. EU directive on electricity appliance labelling.
 - Voluntary agreements - Voluntary agreements are a particular type of environmental instrument where contracts between state authorities and companies are agreed and specific targets are negotiated between the parties; an example is the UK Climate Change Agreements.
 - General environmental regulations, including planning - Include wider regulations, such as Environmental Protection Acts (or Laws), planning and other regulations. Examples include the Environmental Protection Law of the People's Republic of China and the UK Climate Change Act.
 - Renewable energy regulation – National and regional renewable energy policy targets or renewable energy support policies are some of the principal drivers in the growth of renewable energy use.
 - Other regulatory drivers – select other if the type of regulatory driver you are experiencing or expect to experience is not included in the list above. Note that other types of opportunity are also included under changes in physical climate (question 6.1c) and other climate related developments (question 6.1e).
- **Description**
 - Use this text field to enter further details on the opportunity driver, e.g. the exact regulation concerned. Please use no more than 2,400 characters in your answer.

- **Potential impact**

See Box 11. Select from the following options

- Reduced operational costs – a reduction in the day to day costs of running the business
- Reduced capital costs – a reduction in the need to make capital expenditure to maintain competitiveness
- Increased demand for existing products/services
- Premium price opportunities – an opportunity to gain more profit on existing goods/services
- Increased production capacity
- Increase in capital availability – opportunities to attract capital investment
- Increased stock price (market valuation) – an increase in the attractiveness of your organization to investors
- New products/business services – opportunities to make new offerings to the market to address climate change issues
- Investment opportunities – opportunities to make capital investments
- Wider social benefits
- Other, please specify

- **Timeframe**

- See Box 8. Select from the following options:
 - Current
 - 1-5 years
 - 6-10 years
 - >10 years
 - Unknown

- **Direct/Indirect**

- See Box 11. Select from the following options:
 - Direct
 - Indirect (Supply chain)
 - Indirect (Client)

- **Likelihood**

- See Box 11. Select from the following options:
 - Virtually certain
 - Very likely
 - Likely
 - More likely than not
 - About as likely as not
 - Unlikely
 - Very unlikely
 - Exceptionally unlikely
 - Unknown

- **Magnitude of impact**

- See Box 11: Select from the following options:
 - High

- Medium-high
- Medium
- Low-medium
- Low
- Unknown

- **Disclosure Score:** Columns 2-8 must be completed to achieve maximum disclosure points. Where the description (column 2) gives an increased level of detail that is specific to the company, maximum points can be achieved.
- **Performance Score:** There are no performance points for this question

Q6.1b: Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

This question only appears if you tick “Opportunities driven by regulation” in answer to question 6.1.

Please enter your response to this question in the text box provided using no more than 7,000 characters. A toolbar is available at the top of the text box to allow formatting of the response. Please use the ID defined in question 6.1a to clearly identify which opportunities you are referring to and use the formatting tools to identify the subsections of the question you are responding to. You should complete items (i), (ii) and (iii) for each of the regulatory opportunities you have identified in response to question 6.1a. If your description relates to all of the opportunities identified, please state this unambiguously. Details of how to respond to each of these items are provided in Box 12 below.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

Box 12: Financial Implications and Actions

The financial implications of the opportunity should where possible be expressed quantitatively. It is acknowledged that these will be estimates and where possible the assumptions made in arriving at a financial impact figure should be stated.

The methods you are using or plan to use to exploit the opportunity and maximize its potential realization could include diversification of product/service offering, research and development in new product lines or lobbying of decision makers. In all cases please identify how this action has (or is expected) to affect the likelihood and/or magnitude of the opportunity and over what timeframe the opportunity is expected to or has been enhanced.

Finally, please identify the costs associated with the actions you have described and whether they are annual (and if so, how many years they will be incurred) or capital costs. Where there is no cost for action, please explicitly state this is the case.

- **Disclosure Score:** A company must have completed column 2 in 6.1a to qualify to score disclosure points for this question. Scorers must be able to identify which opportunity is being referred to when scoring this question. **If scorers cannot identify the opportunity under discussion, points will not be awarded.** If the description applies to all opportunities, please state this clearly.

In describing the financial implications of the opportunities and the cost of methods or actions to manage the opportunity, more points are available for numerical financial descriptions (open or closed ranges or % relative to a stated or publicly available figure). If there are no financial implications or costs to managing the opportunity, this should be made clear. Other descriptions given which indicate the scale and direction of the financial implication are worth a smaller number of points.

In describing the methods or actions used to manage the opportunity, companies should make reference to the specific activities, projects or products/services which are aiming to manage this opportunity.

- Performance Score: Points are available if the actions to manage the opportunity are being implemented rather than being in the planning stage.

For Electric Utility Sector Companies

In answering the questions above, please consider:

- opportunities that may arise from emissions trading;
- the opportunities that national or international targets on energy efficiency and demand management might present for your company e.g. revenue implications from energy services business units;
- your company’s views on any opportunities that may result from policies on renewable energy or low emissions technologies e.g. current or planned investments in these areas; and
- the extent to which you received financial incentives to reduce the electricity use of customers.

Q6.1c: Please describe the opportunities that are driven by changes in physical climate parameters

This question only appears if you tick “Opportunities driven by changes in physical climate parameters” in answer to question 6.1.

These are opportunities driven by physical changes related to climate change. You are asked to complete your response in the table provided in the ORS. The table is reproduced overleaf and guidance on completing the columns follows.

Please ensure that you review the data to ensure that it remains appropriate.

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact

You can make multiple entries into the table, using the “Add row” button to the bottom right.

- **Opportunity driver**

See Box 11. A wide range of physical climate impacts are also described in Box 10. Select from the following options:

- Change in mean (average) temperature
- Change in temperature extremes

- o Change in mean (average) precipitation
- o Change in precipitation pattern
- o Change in precipitation extremes and droughts
- o Snow and ice
- o Induced changes in natural resources
- o Other physical climate opportunities - select other if the type of physical climate driver you are experiencing or expect to experience is not included in the list above. Note that other types of opportunity are also included under regulatory opportunity (question 6.1a) and other climate related developments (question 6.1e).
- **Description**
 - o Use this text field to enter further details on the opportunity driver, e.g. the exact nature and location of the physical effect concerned. Please use no more than 2,400 characters in your answer.
- **Potential impact; Timeframe; Direct/Indirect; Likelihood and Magnitude of impact**
 - o Select an option from the relevant lists given in question 6.1a. Also see Box 11 for further guidance.
- **Disclosure Score:** Columns 2-8 must be completed to achieve maximum disclosure points. Where the description (column 2) gives an increased level of detail that is specific to the company, maximum points can be achieved.
- **Performance Score:** There are no performance points for this question.

Q6.1d: Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

This question only appears if you tick "Opportunities driven by changes in physical climate parameters" in answer to question 6.1.

Please enter your response to this question in the text box provided using no more than 7,000 characters. A toolbar is available at the top of the text box to allow formatting of the response. Please use the ID defined in question 6.1c to clearly identify which opportunities you are referring to and use the formatting tools to identify the subsections of the question you are responding to. You should complete items (i), (ii) and (iii) for each of the physical opportunities you have identified in response to question 6.1c. If your description relates to all of the opportunities identified, please state this unambiguously. Details of how to respond to each of these items are provided in Box 12 above.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- **Disclosure Score:** A company must have completed column 2 in 6.1c to qualify to score disclosure points for this question. Scorers must be able to identify which opportunity is being referred to when scoring this question. **If scorers cannot identify the opportunity under discussion, points will not be awarded.** If the description applies to all opportunities, please state this clearly.

In describing the financial implications of the opportunities and the cost of methods or actions to manage the opportunity, more points are available for numerical financial descriptions (open or closed ranges or % relative to a stated or publicly available figure). If there are no financial implications or costs to managing the opportunity, this should be made clear. Other descriptions given which indicate the scale and direction of the financial implication are worth a smaller number of

points.

In describing the methods or actions used to manage the opportunity, companies should make reference to the specific activities, projects or products/services which are aiming to manage this opportunity

- **Performance Score:** Points are available if the actions to manage the opportunity are being implemented rather than being in the planning stage.

For Oil and Gas Sector Companies

In answering the questions above, please consider the increased/new opportunities created through climate change, such as accessibility to remote hydrocarbon basins.

Q6.1e: Please describe the opportunities that are driven by changes in other climate-related developments

This question only appears if you tick “Opportunities driven by changes in other climate-related developments” in answer to question 6.1.

You are asked to complete your response in the table provided in the ORS. The table is reproduced below and additional guidance on completing the columns follows. please ensure that you review the data to ensure that it remains appropriate.

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact

You can make multiple entries into the table, using the “Add row” button to the bottom right.

- **Opportunity driver**

See Box 11. Select from the following options:

- o Reputation – there are potential impacts associated with positive perceptions around an organization’s carbon performance by clients, suppliers, partners and the public in general.
 - o Changing consumer behaviour – customer preferences for products/services can change
 - o Induced changes in human and cultural environments – for example, migration and cultural shifts
 - o Fluctuating socio-economic conditions – changes in social and economic prosperity changing a local or regional scale in response to regulatory or physical climate impacts
 - o Increasing humanitarian demands – as climate change effects start to become evident, in particular in the developing world, there is the potential for funds to be diverted to address humanitarian needs
 - o Other drivers – select other if you experience any other opportunity driver that is not a result of changes in regulation or physical climate
- **Description**
 - o Use this text field to enter further details on the opportunity driver, e.g. the exact nature and location of the effect concerned. Please use no more than 2,400 characters in your answer.

- **Potential impact; Timeframe; Direct/Indirect; Likelihood and Magnitude of impact**
 - Select an option from the relevant lists given in question 6.1a. Also see Box 11 for further guidance.
- **Disclosure Score:** Columns 2-8 must be completed to achieve maximum disclosure points. Where the description (column 2) gives an increased level of detail that is specific to the company, maximum points can be achieved.
- **Performance Score:** There are no performance points for this question.

Q6.1f: Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

This question only appears if you tick “Opportunities driven by changes in other climate-related developments” in answer to question 6.1.

Please enter your response to this question in the text box provided using no more than 7,000 characters. A toolbar is available at the top of the text box to allow formatting of the response. Please use the ID defined in question 6.1a to clearly identify which opportunities you are referring to and use the formatting tools to identify the subsections of the question you are responding to. You should complete items (i), (ii) and (iii) for each of the opportunities you have identified in response to question 6.1e. If your description relates to all of the opportunities identified, please state this unambiguously. Details of how to respond to each of these items are provided in Box 12 above.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- **Disclosure Score:** A company must have completed column 2 in 6.1e to qualify to score disclosure points for this question. Scorers must be able to identify which opportunity is being referred to when scoring this question. **If scorers cannot identify the opportunity under discussion, points will not be awarded.** If the description applies to all opportunities, please state this clearly.

In describing the financial implications of the opportunities and the cost of methods or actions to manage the opportunity, more points are available for numerical financial descriptions (open or closed ranges or % relative to a stated or publicly available figure). If there are no financial implications or costs to managing the opportunity, this should be made clear. Other descriptions given which indicate the scale and direction of the financial implication are worth a smaller number of points.

In describing the methods or actions used to manage the opportunity, companies should make reference to the specific activities, projects or products/services which are aiming to manage this opportunity

- **Performance Score:** Points are available if the actions to manage the opportunity are being implemented rather than being in the planning stage.

For Electric Utility Sector Companies

Please disclose any investment in research and development that may result in GHG emission reductions, e.g. CO₂ capture and storage, clean coal technologies and energy storage.

For Auto and Auto Component Manufacturers

Please disclose any actions or plans to introduce of hybrid/electric vehicles and fuel cells.

Q6.1g: Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

This question only appears if you do not tick “Opportunities driven by changes in regulation” in answer to question 6.1.

Please respond to this question in the text box provided in the ORS using no more than 5,000 characters. If required, the toolbar at the top of the text box allows you to format your response.

You are requested to state the opportunities considered, how far into the future they have been considered, giving a date if appropriate, and the specific geographic areas considered. If no opportunities have been identified, you should state this unambiguously and explain why regulatory opportunities are not relevant to your business.

If opportunities have been identified, you should explain why the opportunities are not considered to have the potential to generate a substantive change in your business operations, revenue or expenditure. Possible reasons might be because the potential market or cost savings or advantage over competitors is considered small, or is likely to occur very far into the future.

While information that relates to your company’s sector in general is useful, information specific to your company is preferred. If your company is completely typical of its sector in relation to this category of opportunities and therefore it is not possible to give company-specific information, this should be clearly stated.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- **Disclosure points:** Answers that cover all of the points given in the guidance will score maximum points. More points will be allocated for explanations which are supported by company specific information, or if your company is typical of its sector, sector specific information.
- **Performance points:** There are no performance points for this question.

Q6.1h: Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

This question only appears if you do not tick “Opportunities driven by changes in physical climate parameters” in answer to question 6.1.

Please respond to this question in the text box provided in the ORS using no more than 5,000 characters. If required, the toolbar at the top of the text box allows you to format your response.

You are requested to state the opportunities considered, how far into the future they have been considered, giving a date if appropriate, and the specific geographic areas considered. If no opportunities have been identified, you should state this unambiguously and explain why physical climate opportunities are not relevant to your business.

If opportunities have been identified, you should explain why the opportunities are not considered to have the potential to generate a substantive change in your business operations, revenue or expenditure. Possible reasons might be because the potential market or cost savings or advantage over competitors is considered small, or is likely to occur very far into the future.



While information that relates to your company's sector in general is useful, information specific to your company is preferred. If your company is completely typical of its sector in relation to this category of opportunities and therefore it is not possible to give company-specific information, this should be clearly stated.

If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- Disclosure points: Answers that cover all of the points given in the guidance will score maximum points. More points will be allocated for explanations which are supported by company specific information, or if your company is typical of its sector, sector specific information.
- Performance points: There are no performance points for this question.

Q6.1i: Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

This question only appears if you do not tick "Opportunities driven by changes in other climate-related developments" in answer to question 6.1.

Please respond to this question in the text box provided in the ORS using no more than 5,000 characters. If required, the toolbar at the top of the text box allows you to format your response.

You are requested to state the opportunities considered, how far into the future they have been considered, giving a date if appropriate, and the specific geographic areas considered. If no opportunities have been identified, you should state this unambiguously and explain why other climate-related opportunities are not relevant to your business.

If opportunities have been identified, you should explain why the opportunities are not considered to have the potential to generate a substantive change in your business operations, revenue or expenditure. Possible reasons might be because the potential market or cost savings or advantage over competitors is considered small, or is likely to occur very far into the future.

While information that relates to your company's sector in general is useful, information specific to your company is preferred. If your company is completely typical of its sector in relation to this category of opportunities and therefore it is not possible to give company-specific information, this should be clearly stated.

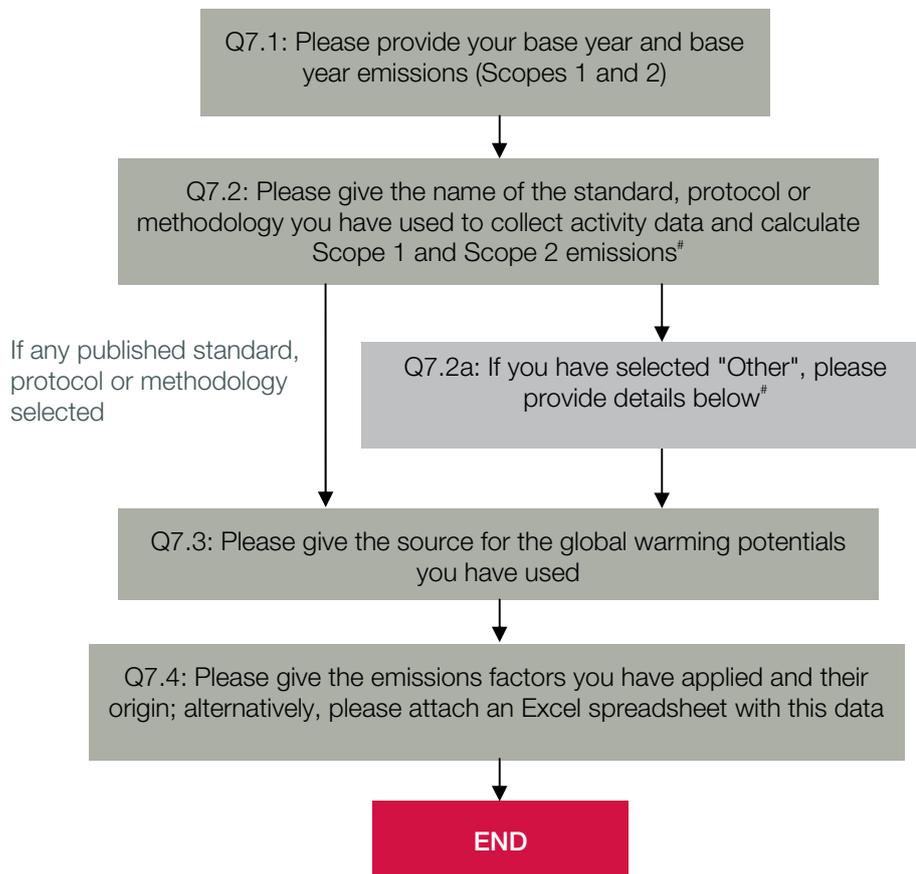
If you are using the copy from last year functionality please ensure that you review the data to ensure that it remains appropriate.

- Disclosure points: Answers that cover all of the points given in the guidance will score maximum points. More points will be allocated for explanations which are supported by company specific information, or if your company is typical of its sector, sector specific information.
- Performance points: There are no performance points for this question.

Emissions Module Guidance

7. Emissions Methodology

Question Pathway



Notes: [#]Question included in the SME questionnaire

General Guidance

The abbreviation “CO₂e” refers to “Carbon dioxide equivalent”, a common unit used to describe any quantity and type of greenhouse gas in terms of the amount of CO₂ that would have the same global warming potential. To express a quantity of GHG in terms of CO₂e, multiply the amount of GHG by its global warming potential.

Key Changes from 2012

No questions have been amended;

- Heat, Steam and Cooling have been added to the drop down list of values for Fuel/Material/Energy in question 7.4;
- The numeric value for Emission Factor in question 7.4 now allows for 5 decimal places;
- There are no significant changes to scoring for this section;
- The drop down list for question 7.2 has been supplemented with additional methodologies.

Pre-population

If you responded to CDP last year, questions 7.1 and 7.3 on this page are eligible for pre-population. To take advantage of this function, click “copy from last year” prior to entering any data on the page.

SME version

Questions 7.2 and 7.2a on this page are included in the SME questionnaire.

Specific Question Guidance

Q7.1: Please provide your base year and base year emissions (Scopes 1 and 2)

Please use the table provided in the ORS to complete your answer – this is reproduced below. This question is asking about the base year for your greenhouse gas inventory. This may be the same as the base year for your targets (reported on Page 3 of the ORS) but this is not necessarily the case. If your organization has changed through acquisitions and/or divestments, the methodology or boundary used to calculate your emissions has changed, or if there have been changes to your excluded sources, you should recalculate your base year emissions so that they can be directly compared with your current emissions.

Please see Chapter 5 of the GHG Protocol for information on setting and recalculating 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 emission information. According to the GHG Protocol 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”.

If a company has measured its emissions in the past, it can use the oldest year for which it has available emissions information, preferably verified or assured, as its base year. If a company is measuring its emissions for the first time, it may choose the current reporting year as the base year.

The GHG Protocol suggests that structural changes in an organisation should trigger a recalculation of base year emissions. A company may, however, decide not to do this if the new emissions are not material or significant to it. It is up to the company to determine the threshold for what it considers as significant or material.



Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Use the calendar button or enter dates manually in the format DD/MM/YYYY in the “From” and “To” fields	Enter your Scope 1 base year emissions. Enter values (without commas) up to 99999999999 and with up to 2 decimal places. If your Scope 1 emissions are 0, please enter this here.	Enter your Scope 2 base year emissions. Enter values (without commas) up to 99999999999 and with up to 2 decimal places. If your Scope 2 emissions are 0, please enter this here.

If your Scope 1 and 2 emissions have a different base year you can add a row using the “Add row” button to the bottom right of the table, using the first row to report your Scope 1 emissions and the second row to report your Scope 2 emissions.

- **Disclosure Score:** Disclosure points are awarded for completion of this question. To achieve these points you must complete either all three columns in one row, or two columns in two rows (depending on whether you have a different base year for your Scope 1 and 2 emissions).
- **Performance Score:** There are no performance points awarded for this question.

Q7.2: Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

There are a variety of standards, methodologies and protocols available which you may use to aid in the collection and reporting of GHG data, but the large majority refer to the GHG Protocol as their basic reference. CDP encourages companies to review the GHG Protocol, where national standards are not specified. In the ORS you will be asked to select the standard, protocol or methodology you have used from a list of some of the published protocols in use, and reproduced below. If the one you have used is not included in the list, or if you have used a combination of methodologies, please select “Other”; you will be given an opportunity to provide more details in response to question 7.2a (see below).

CDP makes no judgments on standards or methodologies applied by companies to produce their inventories. As such, it is impossible for CDP to explicitly accept/reject a specific calculation methodology. We expect that any tool used to calculate emissions for an inventory will follow the best practice and that it will adhere to good practice, and observe important aspects such as the accuracy and completeness principles of standards like the GHG Protocol. Any methodology needs to be evaluated for each specific case to understand if its application is appropriate, considering cost and the principles of GHG accounting. Thus, we consider that evaluating whether or not a certain practice is appropriate for a given purpose is best completed by verifiers/assurers. We expect companies that follow best practice to verify/assure their inventories, namely the methods used to estimate the emissions and the underlying data. Verifiers/assurers will have the necessary training and skills to establish if the methodologies used were the appropriate ones or not, for each case.

From a scoring perspective, at present CDP's scoring methodology does not differentiate between calculation methodologies applied by companies to produce their inventories.

The options available in the ORS as are follows:

- 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
- Brazil GHG Protocol Programme
- Canadian Association of Petroleum Producers, Calculating Greenhouse Gas Emissions, 2003
- China Corporate Energy Conservation and GHG Management Programme
- Defra Voluntary Reporting Guidelines
- ENCORD: Construction CO₂e Measurement Protocol
- Energy Information Administration 1605B
- 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
- 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
- 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
- India GHG Inventory Programme
- International Wine Industry Greenhouse Gas Protocol and Accounting Tool
- IPCC Guidelines for National Greenhouse Gas Inventories, 2006
- IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2003
- 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
- Philippine Greenhouse Gas Accounting and Reporting Programme (PhilGARP)
- Programa GEI Mexico
- Regional Greenhouse Gas Initiative (RGGI) Model Rule
- 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 Organisations
 - The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
 - The Greenhouse Gas Protocol: Public Sector Standard
 - The Tokyo Cap-and Trade Program
 - US EPA Climate Leaders: Direct Emissions from Iron and Steel Production¹
 - US EPA Climate Leaders: Direct Emissions from Municipal Solid Waste Landfilling¹
 - US EPA Climate Leaders: Direct HFC and PFC Emissions from Manufacturing Refrigeration and Air Conditioning Equipment¹
 - US EPA Climate Leaders: Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment¹
 - US EPA Climate Leaders: Indirect Emissions from Purchases/ Sales of Electricity and Steam¹
 - US EPA Climate Leaders: Direct Emissions from Stationary Combustion¹
 - US EPA Climate Leaders: Direct Emissions from Mobile Combustion Sources¹
 - US EPA Mandatory Greenhouse Gas Reporting Rule
 - WBCSD: The Cement CO₂ and Energy Protocol
 - World Steel Association CO₂ emissions data collection guidelines
 - Other
-
- **Disclosure Score:** Disclosure points are available where a selection is made from the drop down menu. Where the selection made is “Other”, question 7.2a must be completed to score maximum points for this question set.
 - **Performance Score:** There are no performance points awarded for this question.

Q7.2a: If you have selected "Other", please provide details below

If you have selected “Other” in answer to question 7.2 (see above) please provide a response to this question.

Please use the text box provided to give a description of the methodology or methodologies that you have used to collect activity data and calculate your Scope 1 and Scope emissions. Please give the name of the published methodology that is not on the list in question 7.2 or give a description of an in-house methodology or a combination of in-house and published methodologies. Use no more than 5,000 characters in your response.

If you have selected any other option from question 7.2, please leave this question blank.

- **Disclosure Score:** Disclosure points are awarded for an answer that meets the guidance given above.
- **Performance Score:** There are no performance points awarded for this question.

¹ This program has now ended but its methodologies may still be in use.

Q7.3: Please give the source for the global warming potentials you have used

The GHG Protocol defines a global warming potential (GWP) as “a factor describing the radiative forcing impact (degree of harm to the atmosphere) of one unit of a given GHG relative to one unit of CO₂.” By using GWPs, GHG emissions from multiple gases can be standardized to a carbon dioxide equivalent (CO₂e).

For example, in the Intergovernmental Panel on Climate Change Second Assessment Report (SAR) the impact on the atmosphere of one unit of methane over a 100-year time span is 21 times greater than one unit of CO₂. Hence, methane’s global warming potential (GWP) over a 100-year period is 21. Carbon dioxide has a GWP of 1 in all the IPCC reports as it is used as a standard against which the GWP of other GHGs are measured.

Estimates of GWPs have changed over time as scientific understanding has developed. However, for the sake of consistency, the parties to the United Nations Framework Convention on Climate Change are continuing to use the GWPs in the Second Assessment Report (SAR) from the IPCC. As the GWPs from the SAR are used as the basis for international negotiations under the Kyoto Protocol, CDP also recommends that they be used for disclosing GHG emissions in response to the CDP information request.

For those gases not assigned a GWP in the SAR, please use the latest GWPs given in the Fourth Assessment Report (AR4). In every case, disclose the source of the GWPs you are using. Note that AR4 gives the latest GWP values as well as GWPs from the SAR.

GWPs are expressed over a number of different time frames within the IPCC Assessment Reports. If completing an inventory for the first time, please use the factors for the 100-year time span.

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.

Use the table provided in the ORS and reproduced overleaf for your answer to this question for the Kyoto greenhouse gases, which are methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbon family of gases (HFCs), perfluorocarbon family of gases (PFCs) and sulfur hexafluoride (SF₆). There is no need to enter a value for the 6th Kyoto gas, carbon dioxide, (CO₂) unless this has been copied from last year. Furthermore, whilst only the 5 gases are requested, you may enter others if you wish by selecting the “Other” option from the drop down menu and entering the name of the gas in the text box provided.

Gas	Reference
Select from:	Select from:
CH ₄	IPCC Fourth Assessment Report (AR4 - 100 year)
N ₂ O	IPCC Third Assessment Report (TAR - 100 year)
HFCs	IPCC Second Assessment Report (SAR - 100 year)
PFCs	IPCC Fourth Assessment Report (AR4 - 50 year)
SF ₆	IPCC Third Assessment Report (TAR - 50 year)
CO ₂	IPCC Second Assessment Report (SAR - 50 year)
Other, please specify	IPCC Fourth Assessment Report (AR4 - 20 year)
	IPCC Third Assessment Report (TAR - 20 year)
	IPCC Second Assessment Report (SAR - 20 year)
	Other, please specify

You can make multiple selections by using the “Add Row” button at the bottom right of the table.

- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

Q7.4: Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data

As noted on page 44 of the GHG Protocol, “direct measurement of GHG emissions by monitoring concentration and flow rate is not common.” Normally, direct measurement takes place only in facilities with continuous emissions monitoring systems, such as power plants. Instead of direct measurement, many companies calculate GHG emissions by applying documented emission factors to activity data (e.g. tonnes of coal consumed or cubic meters of natural gas burnt).

Emission factors are sometimes referred to as conversion factors. Activity data (e.g. cubic meters of natural gas) is multiplied by an emission factor to estimate the GHG emissions from the activity (e.g. combustion of natural gas).

Identifying the most appropriate and accurate emission factors to use is one of the most challenging issues in GHG accounting. Therefore, it is beyond the scope of CDP’s work to provide advice on specific factors and how they should be applied. Emission factors vary with the precise nature of the material involved. For example, an emission factor will vary with the type of coal combusted and the type of technology used to burn the coal. The GHG Protocol encourages you to calculate your own emission factors based on specific materials used and processes adopted. When this is not possible, you should refer to emissions factors published by governmental and other bodies such as the EPA in the US, DEFRA in the UK and the IEA. You may also find it useful to refer to emissions factor databases compiled by organizations offering carbon calculation services. For additional advice on emissions factors, you may want to contact one of CDP’s carbon calculation partners (<https://www.cdproject.net/en-US/OurNetwork/Pages/carbon-calculation-partners.aspx>). Emission factors may also be incorporated in the calculation tools that you use (e.g. see <https://www.cdproject.net/en-US/OurNetwork/Pages/carbon-calculation-partners.aspx>). Please note that emission factors should apply to the reporting year.

Emissions factors will also vary depending for what purpose they have been calculated for. This is particularly an issue in accounting for electricity. You can check the technical note “Accounting of Scope 2 emissions” for more information on electricity emission factors, available at <https://www.cdproject.net/guidance>. In response to this question it is preferable that you enter the data in the table provided in the ORS and reproduced overleaf. If you have a large number of emission factors, you may find it easier to attach an Excel spreadsheet instead at the bottom of the page. If you choose this option, please ensure that the spreadsheet contains only this information, it is presented in the same way as the table below, and that the attachment is clearly named. A template spreadsheet is available at <https://www.cdproject.net/guidance>.

Fuel/Material/Energy	Emission Factor	Unit	Reference
Select from: Anthracite; Asphalt/ bitumen; Aviation gasoline; Biodiesels; Biogas; Biogasoline; Bituminous coal; BKB; Blast furnace gas; Brown coal; Brown coal briquettes; Butane; Charcoal; Coke breeze; Coke oven coke; Coke oven gas; Coking coal; Cooling; Crude oil; Diesel/Gas oil; Distillate fuel oil No 1; Distillate fuel oil No 2; Distillate fuel oil No 3; Distillate fuel oil No 4; Distillate fuel oil No 5; Distillate fuel oil No 6; Electricity; Ethane; Gas works gas; Heat; Jet gasoline; Jet kerosene; Kerosene; Landfill gas; Lignite;	Enter a numeric value into this field, using no commas and no more than 5 decimal places.	Select from: metric tonnes CO2e per m3 metric tonnes CO2 per m3 metric tonnes CO2e per litre metric tonnes CO2 per litre metric tonnes CO2e per MWh metric tonnes CO2 per MWh kg CO2e per litre kg CO2 per litre kg CO2e per MWh kg CO2 per MWh metric tonnes CO2e per GJ metric tonnes CO2 per GJ metric tonnes CO2e per	Enter the reference you have used for the emission factor into this text field. Where you have selected electricity please also specify the relevant country in this column as well as the reference.

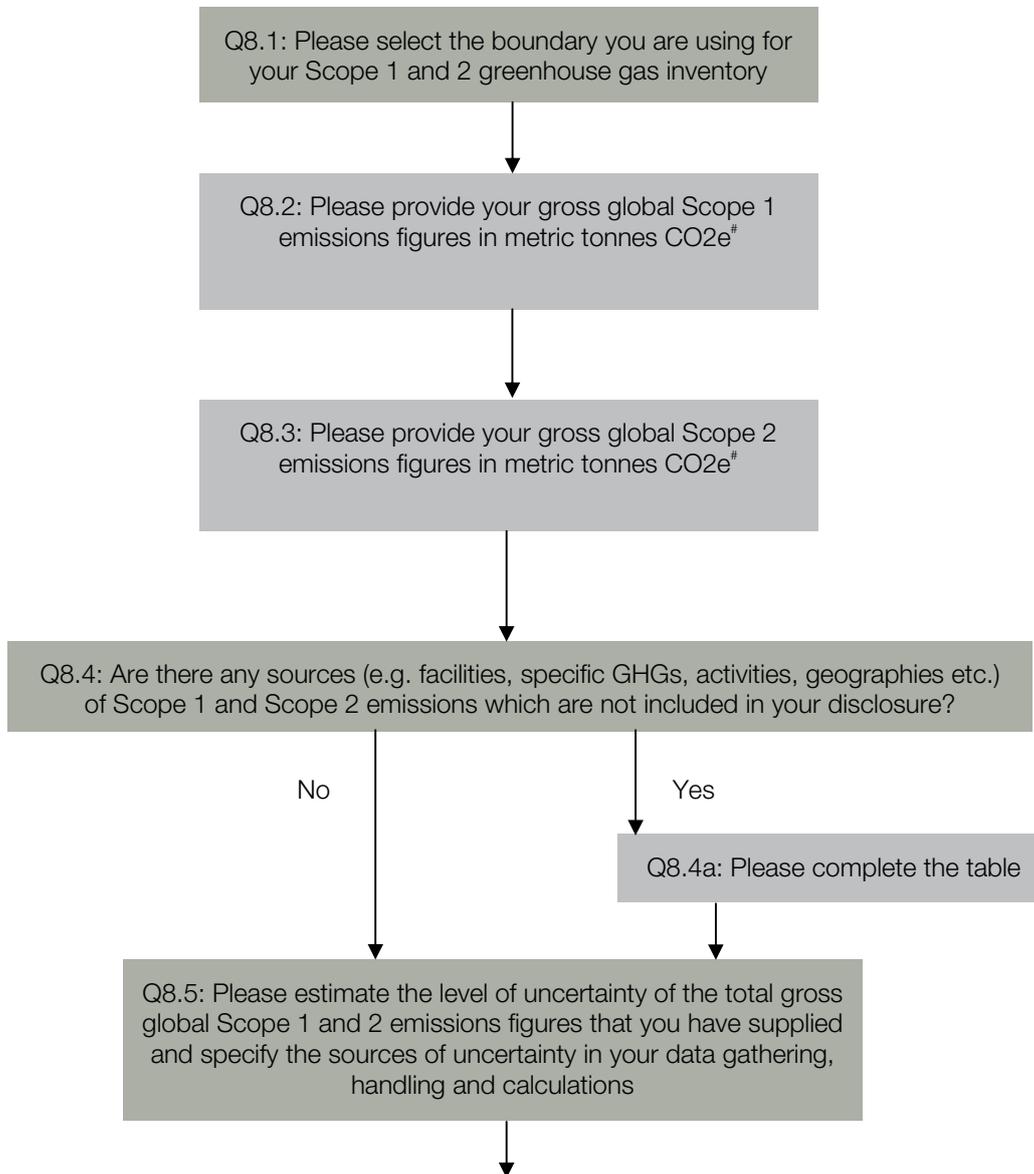
<p>Lignite coke; Liquefied Natural Gas (LNG); Liquefied petroleum gas (LPG); Lubricants; Metallurgical coke; Methane; Motor gasoline; Municipal waste; Naphtha; Natural gas; Oil shale and tar sands; Orimulsion; Oxygen steel furnace gas; Patent fuel; Peat; Petroleum coke; Pitch; Propane;</p> <p>Refinery feedstocks; Refinery gas; Refuse-derived fuel; Residual fuel oil; Semi-coke; Shale oil;</p> <p>Sludge gas; Steam; Sub bituminous coal; Sulphite lyes (Black liquor); Tar; Town gas or city gas; Turpentine; Vegetable oils; Waste oils; Waste plastics; Waste tire derived fuels; Waxes; White spirit/ SBP; Wood or wood waste, Other, please specify</p>		<p>metric tonne</p> <p>metric tonnes CO2 per metric tonne</p> <p>lb CO2e per 1000 ft3</p> <p>lb CO2 per 1000 ft3</p> <p>lb CO2e per gallon</p> <p>lb CO2 per gallon</p> <p>lb CO2e per barrel</p> <p>lb CO2 per barrel</p> <p>lb CO2e per million BTU</p> <p>lb CO2 per million BTU</p> <p>lb CO2e per short ton</p> <p>lb CO2 per short ton</p> <p>lb CO2e per MWh</p> <p>lb CO2 per MWh</p> <p>Other, please specify</p>	
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If using the table in the ORS, use the “Add Row” button to the bottom right of the table to make multiple entries.

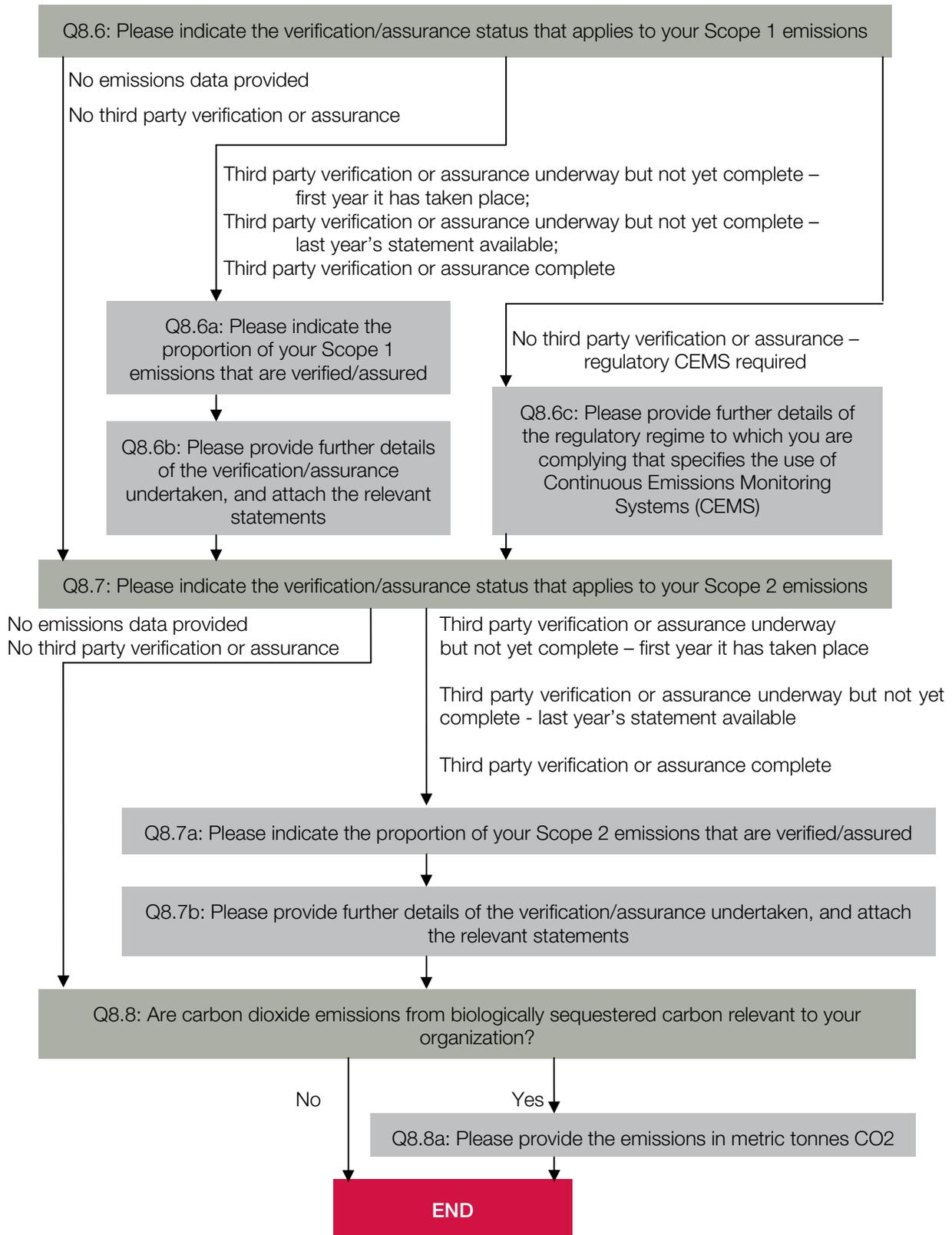
- Disclosure and Performance: This question is not scored.

8. Emissions Data

Question Pathway



CONTINUED OVERLEAF



Notes: #Question included in the SME questionnaire

General Guidance

Key Changes from 2012

Questions 8.1, 8.2b, c, d and 8.3b, c, d have been removed to reflect an alignment on financial control boundary definition between the GHG Protocol and Climate Disclosure Standards Board. Companies using the Climate Change Reporting Framework (CCRF) should select financial control as their boundary in question 8.1, report their Scope 1 and Scope 2 emissions accordingly in questions 8.2 and 8.3, and then provide their CCRF breakdown under legal structure in a new option made available in questions 9.2e and 10.2d.

An additional question for External Verification or Assurance, question 8.6c, has been included in 2013 to capture the activities of companies using Continuous Emissions Monitoring Systems (CEMS) under regulatory regimes.

The scoring methodology has been amended to reflect the changes to the questionnaire. Scoring has been introduced for the new question 8.6c.

In addition, the ORS has been developed to allow attachments to be inputted directly into table columns. This applies to questions 8.6b, 8.6c and 8.7b.

Pre-population

None of the questions on this page are eligible for pre-population if you responded last year.

SME version

Questions 8.2 and 8.3 on this page are included in the SME questionnaire.

Specific Question Guidance

Q8.1: Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

The way in which companies are identified for inclusion within the reporting boundary is known as the “consolidation approach” because, unless stated otherwise, the information you provide in response to the CDP 2012 request should be presented as one “consolidated” result covering all of the companies, entities, businesses, etc. within your reporting boundary. When determining reporting boundaries, CDP recommends that you consult your legal or accounting advisors.

In the drop down menu provided in the ORS, please select from one of the following options:

- Financial control
 - i.e. companies etc over which you have financial control
- Operational control
 - i.e. companies etc over which you have operational control
- Equity share
 - i.e. companies etc in which you have a share in the operation
- Other, please specify

Further clarification of these terms is provided below.

The consolidation approach you identify for your company in answer to question 8.1 should be used consistently to respond to all questions except in question 13.1 where you are asked to report on emission trading schemes in which you participate. In this case we request that in accordance with the GHG Protocol: *“Although some emission trading schemes may apply solely to the operators of facilities, the financial*



position of facility owners is also affected indirectly by the operation of the scheme. This question therefore applies to both owners and operators of facilities covered by trading schemes. Even if your company does not wholly own facilities, please give the total number of emissions and allowances.”

The first three options presented above are based on the GHG Protocol, and are described in more detail below (text adapted from the GHG Protocol):

- An organization has **financial control** over an operation if it has the ability to direct the financial and operating policies of the operation with a view to gaining economic benefits from its activities. Generally an organization has financial control over an operation for GHG accounting purposes if the operation is treated as a group company or subsidiary for the purposes of financial consolidation;
- An organization has **operational control** over an operation if it or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation;
- Under the **equity share** approach, a company accounts for GHG emissions from operations according to its share of equity in the operation. The equity share reflects the economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation. Typically, the share of economic risks and rewards in an operation is aligned with the company’s percentage ownership of that operation, and equity share will normally be the same as the ownership percentage. Where this is not the case, the economic substance of the relationship the company has with the operation always overrides the legal ownership form to ensure the equity share reflects the percentage of economic interest. The principle of economic substance taking precedence over legal form is consistent with international financial reporting standards.

If your boundary does not comply with any of these consolidation methods then you can select “Other”. However, please note that this option should not be used to explain that some emissions sources within the reporting boundary have been excluded from your calculation – in this case, select the overall boundary approach used and state the exclusions from this boundary in your response to question 8.4.

In the case of leasing arrangements, please see the GHG Appendix: Categorizing GHG Emissions from Leased Assets and the International Accounting Standard (IAS)17 on Leases, published by the International Financial Reporting Standards (IFRS) to determine the appropriate scope for those emissions.

- **Disclosure Score:** Disclosure points are awarded for making a selection from the drop down menu. Where “Other” is selected, details must be given in the text box provided.
- **Performance Score:** There are no performance points awarded for this question.

Q8.2: Please provide your gross global Scope 1 emissions figures in metric tonnes CO₂e

You should respond by entering a total figure into the number field below the question. Answers should be no more than 9999999999 (without commas) and using no more than 2 decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only. If you do not have an emissions figure, you should leave the question blank. Putting in zero would suggest that you have measured your emissions and that it is zero. Important guidance on reporting Scope 1 emissions is provided in Box 13.

- **Disclosure Score:** Scope 1 emissions data must be provided to score disclosure points.
- **Performance Score:** There are no performance points awarded for this question.

Box 13: Guidance on reporting Scope 1 emissions

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. This transparency is meant to provide users with the most accurate portrayal of the emissions created within your company boundary.

Carbon dioxide emitted from the combustion of biomass/biofuel or fermentation should not be included in your response to question 8.2 but should be reported in answer to question 8.8.

Scope 1 emissions should be reported in metric tonnes of CO₂e. Common conversion factors are included in the technical note “Units of Measure Conversions”, available at <https://www.cdproject.net/guidance>.

Special requirements for carbon sequestration, captured & stored and transferred CO₂, transfer in – transfer out, enhanced oil recovery, and Danish energy providers are explained in the technical note “Special conditions for reporting Scope 1 emissions”, available at <https://www.cdproject.net/guidance>.

Q8.3: Please provide your gross global Scope 2 emissions figures in metric tonnes CO₂e

You should respond by entering a total figure into the number field below the question. Answers should be no more than 9999999999 (without commas) and using no more than 2 decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. If you do not have an emissions figure, you should leave the question blank. Putting in zero would suggest that you have measured your emissions and that it is zero. Emission figures should be for the reporting year only. Important guidance on reporting Scope 2 emissions is provided in Box 14.

- **Disclosure Score:** Scope 2 emissions data must be provided to score disclosure points.
- **Performance Score:** There are no performance points awarded for this question.

Box 14: Guidance on reporting Scope 2 emissions

Indirect GHG emissions mostly occur from the generation of purchased electricity (and purchased heat, steam and cooling) consumed by the company. “Electricity” is used here in accordance to the way it is defined in the GHG Protocol [page 25/33, footnote 2], this is “The term “electricity” 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.

Non-energy-intensive companies are likely to have more significant 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.”

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”, available at <https://www.cdproject.net/guidance>.

If you are unsure about the answers provided in this guidance and technical annexes to your questions, you should consult your electricity suppliers, carbon advisor or verifier/assurer. CDP recognizes that we are currently in a transition and clarification phase on Scope 2 accounting and that during this transition there will be legitimate doubts on what practices to follow. Accounting for scope 2 emissions associated with energy purchase and consumption can present many conceptual and technical challenges. The GHG Protocol is seeking to provide international guidelines clarifying appropriate methods, due in spring 2013. Until its publication, CDP's reporting recommendation reflects the practices and principles that it and many other active stakeholders in the GHG Protocol consultation have supported.

Companies are encouraged to be fully transparent on what their current approach is and the changes introduced into CDP in 2013 have been designed to promote transparency around Scope 2 accounting.

CDP's approach deviates from previous year's guidance (2010 to 2012) in so far as:

- CDP will no longer request a "contractual scope 2" figure. Companies that wish to provide alternative scope 2 figures based on different allocation methods are welcome to do so as part of their other disclosures and reporting obligations. To report it in CDP please use the "Further information" field or as a note/document attached to the CDP disclosure.
- Companies purchasing renewable energy which is backed by appropriate tracking instruments can reflect them in their scope 2 accounts if they wish. It is accepted that while there is no full consensus on the accounting approach and corrected emission factors are not yet in place, that double counting of properties is likely to occur. CDP interprets this as a failure of the accounting system, due to a necessary transition that still has to happen. CDP will keep working in this space with all relevant parties (companies, suppliers, consultants, GHG practitioners, NGO's and government bodies) to avoid this type of double counting. It is however an important requirement, to use instruments that can robustly track electricity and thus be used to produce corrected emission factors that avoid double counting.

For further information please check the technical note "Accounting of Scope 2 emissions", available at <https://www.cdproject.net/guidance>.

Danish Energy Providers

If you are included within the Danish energy saving directive and you sell your certified energy savings, you may still report a reduced Scope 2 figure to the CDP.

Readers and responders who would like to see the approach taken by others on this issue can refer to the following:

- The Climate Registry: See "Chapter 14: Indirect emissions form electricity use" of the General Reporting Protocol (an updated draft version currently in public consultation can be found here <http://www.theclimateregistry.org/downloads/2012/12/Updated-Draft-GRP-2.0.pdf>);
- [The Carbon Trust Standard: See Section 3.3.5 of the Methodology](#); and
- [Publicly Available Specification 2050 \(Specification for the assessment of the life cycle greenhouse gas emissions of goods and services\)](#): See 7.9.3 of PAS 2050:2008.
- [Product Environmental Footprint \(PEF\) Guide](#) produced by the JRC (check point 5.4.8).

Box 15: Appropriate tracking instruments

Tracking instruments can have different names depending on the specific system they originate from. They can be designated as a “certificate”, “tags”, an “instrument”, “credits”, a “guarantee of origin”, etc. For the purpose of this guidance we will use “instruments” as the overarching concept for all these different designations.

When accounting for renewable energy based on tracking instruments, companies should be made aware of what constitutes a good system for tracking electricity. From a CDP perspective, there are 4 simple criteria that need to be fulfilled:

- There is an entity responsible for the instruments generation (issuing body) that issues the instrument in a publicly available registry(ies) against renewable energy delivered by a generator. Only one instrument is issued per unit of energy (e.g. MWh) and this link is properly audited.
- A set of attributes are present in the instrument (or can be legitimately inferred from it) namely: name of producer; technology type; year of installation; year of production; state support/aid; emission rate; other environmental characteristics. Properties should not be disaggregated e.g. it is not allowed for one party to count for the GHG emission factor and another party to count for the fact that it is renewable in origin.
- There is an auditable chain of custody, that is, all information can be verified/audited by users in the system and the whole system is audited by external parties, guaranteeing that the link between generation, distribution and final consumption is effectively established and that there is no double counting.
- The information in the system can be used to avoid the double counting of attributes.

CDP will generally consider the following systems (and instruments) as appropriate for the purpose of tracking renewable electricity:

- Systems based on European Guarantees of Origin (GOs) such as the EECS (European Energy Certificate System).
- Systems based on USA Renewable Energy Certificates such as the Green-e Energy program in the USA.

In addition to the issuance, tracking of properties and guarantee of the chain of custody, there can be certification schemes that will testify for the appropriate use of an instrument for a given purpose.

Further discussion of these issues as well as specific terminology can be found in the technical note “Accounting of Scope 2 emissions”, available at <https://www.cdproject.net/guidance>.

Q8.4: Are there any sources (e.g. facilities, specific GHGs, activities, geographies etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

You are asked to identify sources that would normally be within the consolidation boundary you have identified for your disclosure (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 or represent a number of very small facilities making it difficult to gather data. Alternatively it may be that you are reporting data only for carbon dioxide emissions rather than all the gases covered by the GHG Protocol. Exclusions should be reported where they are potentially material to the disclosure (either singularly or collectively).

General reasons for exclusions can include the following:

- Incomplete information for the period in question;
- Structural changes to the organization including:
 - Mergers,
 - Acquisitions,
 - Divestments;
- Outsourcing and/or insourcing of activities; and
- Unreliable information.

You are encouraged to review the above list when identifying which sources, including but not limited to facilities, specific GHGs, activities, and geographies, may be excluded from your consolidation boundary.

The GHG Protocol comments on the reporting of exclusions and highlights that *“any acknowledgement should be made in the report each year in order to enhance transparency; otherwise new users of the report in the two or three years after the change may make incorrect assumptions about the performance of the company.”*

Please answer this question by selecting “yes” or “no” from the drop down menu provided in the ORS. If you answer “yes” you will be directed to question 8.4a where you will provide more details of the exclusions; if you answer “no” you will be directed to the next question, question 8.5. If you have not measured your Scope 1 or Scope 2 emissions, leave this question blank.

- **Disclosure Score:** Disclosure points awarded for selecting an option from the drop down menu.
- **Performance Score:** There are no performance points awarded for this question.

Q8.4a: Please complete the table

This question only appears if you answer “yes” to question 8.4.

Please provide details of the exclusions in the table provided in the ORS, reproduced below.

Source	Scope	Explain why the source is excluded
Please use this text field to name and briefly describe the source you are excluding. Use no more than 2,400 characters.	Select from: Scope 1 Scope 2 Scope 1 and 2	Please use this text field to describe why the source is excluded and its significance. If possible, provide an estimate of the percentage of total emissions contained within the reported boundary that the exclusion represents. Use no more than 2,400 characters.

You can enter multiple sources of exclusions into the table, using the using the Add Row button at the bottom right of the table.

- **Disclosure Score:** Disclosure points awarded for this question where columns 1-3 (“source”, “scope” and “explain”) must be completed, including a description of the excluded source and its significance.
- **Performance Score:** There are no performance points awarded for this question.

Oil and Gas Sector Companies: You are particularly asked to state if you are not disclosing methane emissions in general, for any specific facilities or for particular types of equipment.

Q8.5: Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Uncertainty can arise from data gaps, assumptions, metering/measurement constraints, published emissions factors, data management, etc. Within your response to CDP you are likely to encounter three possible types of uncertainty when calculating your emissions figures:

- Uncertainty surrounding the calculation of global warming potentials (GWPs);
- Uncertainty surrounding the calculation of published emissions factors; and
- Uncertainty in your activity data or direct measurement of emissions.

As you cannot control the uncertainty surrounding the calculation of GWPs or published emissions factors, you should not report these sources in response to this question.

As an example, measuring equipment will always be limited by how accurately it can measure. Additionally the ways in which gas sampling and techniques for statistical treatments of data are deployed may affect GHG estimates. These limitations may be known and could potentially have a significant bearing on the accuracy of your organization’s GHG calculations. You may refer to the guidance tool provided by the GHG Protocol for further assistance: <http://www.ghgprotocol.org/calculation-tools/all-tools>.

Please use the table provided in the ORS (as reproduced below) to complete your answer. If you have evaluated your emissions sources and do not have emissions in one or the other scope, for that scope please select “less than or equal to 2%” for uncertainty range, for main sources of uncertainty select “No Sources of Uncertainty” and state in the text field that you do not have emissions in that scope. If you have not measured either your Scope 1 or Scope 2 emissions, leave this question blank. Guidance on completing each column of the table is provided below.

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data

- Uncertainty range (Scope 1 emissions and Scope 2 emissions): Select from the following uncertainty ranges, rounding your uncertainty value to the nearest whole number (+ or -) if appropriate:
 - Less than or equal to 2%
 - More than 2% 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 20%
 - More than 20% but less than or equal to 30%
 - More than 30% but less than or equal to 40%
 - More than 40% but less than or equal to 50%
 - More than 50% but less than or equal to 60%
 - More than 60% but less than or equal to 70%
 - More than 70% but less than or equal to 80%
 - More than 80% but less than or equal to 90%
 - More than 90% but less than or equal to 100%

- Greater than 100%
- Main sources of uncertainty (Scope 1 emissions and Scope 2 emissions): Select the ones that apply:
 - Data Gaps
 - Assumptions
 - Extrapolation
 - Metering/ Measurement Constraints
 - Sampling
 - Data Management
 - No Sources of Uncertainty
 - Other, please specify
- Please expand on the uncertainty in your data (Scope 1 emissions and Scope 2 emissions): Use this text field to expand on the identified sources of uncertainty and how they are specific to your company. Please use no more than 2,400 characters in your answer.

Electric Utility Companies

Investors request that if data accuracy varies with type of installation, the different degrees of accuracy are given. The fourth column of the table can be used for that purpose.

- **Disclosure Score:** All columns must be completed in accordance with the guidance given above to score maximum disclosure points for this question.
- **Performance Score:** There are no performance points awarded for this question.

Q8.6: Please indicate the verification/assurance status that applies to your Scope 1 emissions

Please respond to this question by selecting one of the options from the list below, which will be available as a drop down menu in the ORS.

- No emissions data provided
- No third party verification or assurance
- No third party verification or assurance – regulatory CEMS required
- Third party verification or assurance underway but not yet complete - first year it has taken place
- Third party verification or assurance underway but not yet complete - last year's statement available
- Third party verification or assurance complete

Note that this question applies to Scope 1 emissions only. CDP regards verification/assurance as a process undertaken by an independent third party. Please only state that you have had or are having verification/assurance carried out if it is by an independent third party. If you have had a proportion of your Scope 1 emissions verified, please select the option that applies to these emissions; you will be given an opportunity in question 8.6a to provide further details on this.

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. Where this is the case, you should select one of the verification or assurance underway options, whichever best describes your situation.

Companies that are required, as part of the regulatory regimes in which they operate, to gather data using Continuous Emissions Monitoring Systems (CEMS) and submit this to the regulatory authority without further



third party verification can indicate this by selecting “No third party verification or assurance – regulatory CEMS required”. If you operate under such a regime but also get independent third party verification, select the option that reflects your third party verification or assurance status.

In subsequent questions companies will be asked to provide evidence of the third party verification or regulatory CEMS that they select here. Companies are advised to verify that their evidence can demonstrate all of the requirements set by CDP before answering this question to confirm that their activities comply, e.g. by consulting with their verifier/assurer. Full details are provided in the guidance for questions 8.6b and 8.6c. If certain information requirements set by CDP are not available in the standard assurance statement provided by your verifier, CDP have produced a template that can be used in conjunction with the original assurance statement – see **Box 16** for further details.

If you select either “Third party verification or assurance underway but not yet complete - first year it has taken place”, “Third party verification or assurance underway but not yet complete - last year’s statement available”, or “Third party verification or assurance complete” you will be directed to questions 8.6a and 8.6b. If you select “No third party verification or assurance – regulatory CEMS required” you will be directed to question 8.6c. If you select “No emissions data provided” or “No third party verification or assurance” you will be directed to the next question, question 8.7.

- **Disclosure Score:** Disclosure points are awarded for the selection of an option from the drop down menu. Note that companies that select “No emissions data provided” or “No third party verification or assurance” will be scored out of the maximum points available for questions 8.6a and 8.6b.
- **Performance Score:** There are no performance points awarded for this question.

Q8.6a: Please indicate the proportion of your Scope 1 emissions that are verified/assured

This question only appears if you have selected “Third party verification or assurance underway but not yet complete - first year it has taken place”, “Third party verification or assurance underway but not yet complete - last year’s statement available”, or “Third party verification or assurance complete” in answer to question 8.6.

It may be the case that only a sub-section of your emissions have been verified/assured due to, for example, regulatory requirements. Please identify what proportion of your gross global Scope 1 emissions have been subject to the verification/assurance process described by selecting one of the following options:

- More than 0% but less than or equal to 20%
- More than 20% but less than or equal to 40%
- More than 40% but less than or equal to 60%
- More than 60% but less than or equal to 80%
- More than 80% but less than or equal to 90%
- More than 90% but less than or equal to 100%

Note that this question refers to the proportion of your business 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 operations that these US facilities represent. Alternatively, if you have sought organization wide verification, then you should select the last option, more than 90% but less than or equal to 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.



- Disclosure Score: Disclosure points awarded for selection of an option from the drop down menu.
- Performance Score: There are no performance points awarded for this question.

Q8.6b: Please provide further details of the verification/assurance undertaken, and attach the relevant statements

This question only appears if you have selected “Third party verification or assurance underway but not yet complete - first year it has taken place”, “Third party verification or assurance underway but not yet complete - last year’s statement available”, or “Third party verification or assurance complete” in answer to question 8.6.

Please complete your response to this question in the table provided in the ORS and reproduced below. The information required should be available on your verification/assurance statement or, if verification/assurance is still underway, should be available from your verifier/assurer.

If you are reporting third party verification or assurance underway, your entries into the table should reflect the proportion of emissions that are being subject to verification/assurance for the current reporting year, with the exception of the statement.

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 the event that this is the 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 the column to which the statement is attached).

Type of verification or assurance	Relevant standard	Attach the document

If you wish to complete multiple rows, use the “Add Row” button to the bottom right of the table. See below for instructions on how to complete the columns.

- Type of verification or assurance: 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: (Note that the examples of standards that apply to each level of assurance are not exhaustive and are provided for illustrative purposes only)
 - 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 example, 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 AT101.
 - 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 AT101.
 - 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.
- Relevant standard: This column captures the verification standard to 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 – see **Box 16** for further details. All accepted verification standards, and exceptions to their use, are listed on CDP’s website (<https://www.cdproject.net/en-US/Respond/Pages/verification-standards.aspx>). The verification standard should be stated on the verification statement. Select from the following options; use “Other” if the standard you are using is not included):
 - AA1000AS
 - Alberta specified gas emitters regulation (SGER)
 - ASAE3000
 - Assurance Standard 3410N
 - Attestation standards established by AICPA (AT101)
 - Australian national GHG emission regulation (NGER)
 - California mandatory GHG reporting regulations (CARB)
 - Canadian institute of chartered accountants (CICA) Handbook: Assurance Section 5025
 - CCX verification standard
 - Certified emissions measurement and reduction scheme (CEMARS)
 - Compagnie nationale des commissaires aux comptes (CNCC)
 - Corporate GHG verification guidelines from ERT
 - DNV verisustain protocol/ verification protocol for sustainability reporting
 - ERM GHG performance data assurance methodology
 - European Union Emissions Trading System (EU ETS)
 - ISAE3000
 - ISO14064-3
 - Japan voluntary emissions trading scheme (JVETS) guideline for verification
 - Korean GHG and energy target management system
 - RevR6 procedure for assurance of sustainability report
 - Spanish institute of registered auditors (ICJCE)
 - The Climate Registry’s general verification protocol
 - Tokyo cap-and-trade guideline for verification
 - Verification as part of Carbon Trust standard certification
 - Other, please specify
- Attach the document: click on “Browse” to locate the appropriate file and then “Attach” to attach the document to the response. Note the requirements for the statement detailed below and the option to use the CDP template as detailed in Box 16. If you have multiple documents for a single verification (e.g. if you have multiple facility verification reports all covered under a single verification standard) you should attach these as a zip file. All companies should attach a verification statement here unless they have selected “Third party verification or assurance underway but not yet complete - first year it has taken



place” in response to question 8.6 – in this case companies should leave this column blank. The statement should:

- i. 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;
- ii. Relate to the relevant scope;
- iii. Clearly state the opinion and type of verification/assurance that has been given and the verification standard used (see **Box 16** for more information on accepted verification standards). These should match the selections made in columns 1 and 2;
- iv. Covers the current reporting year.

Box 16: Verification

Third party verification strongly supports CDP’s strategic priority of increasing data quality and as such, is awarded highly in the scoring system. CDP is committed to increasing both the number of companies gaining third party verification and also the amount of data in the CDP response that is verified. In turn, this will build trust in carbon reporting and lead to an increase in the use of the data in analysis and decision making. Key drivers for verification include the increasing market demand from investors, customers, regulators, non-governmental organizations and other stakeholders for assured and reliable climate data. At the same time there is a need to ensure that the verification practices undertaken by different companies are clearly described and comparable – thereby increasing the confidence and trust that various stakeholders have in the data and ultimately each organization.

Acceptable Standards

CDP has defined a set of criteria for verification standards to determine what is an “acceptable” standard for CDP (see below for the criteria) and lists all standards that have been reviewed against these criteria online at <https://www.cdproject.net/en-US/Respond/Pages/verification.aspx>. This list is updated throughout the disclosure period as new standards come to our attention. If you are using a standard that has not been reviewed, please contact verification@cdproject.net with details of the standard so that it can be reviewed.

The criteria for verification standards are:

- **Relevance:** The standard should specify that it relates to a 3rd party audit or verification process; for a program related standard, 3rd party verification should be specified as part of the program compliance.
- **Competency:** The standard should include a statement regarding competency of verifiers; where it is a program and verification parties are stipulated, competency is assumed to be determined by the 2nd party and therefore need not be explicit in the standard.
- **Independence:** The standard should contain a requirement that ensures that impartiality is maintained in cases where the same external organization compiles and verifies a responding company’s inventory.

- **Terminology:** The standard should specify the meaning of any terms used for the level of the finding (e.g. limited assurance; reasonable assurance).
- **Methodology:** The standard should describe a methodology for the verification that includes the verification of the process and/or system controls and the data.
- **Availability:** The standard should be available for scrutiny.

Requirements for attachments

The attached documentation should cover the evidence specified in the question level guidance (see guidance for the column to which your document is attached). In most cases this will be a verification statement issued to you by your verifier. Alternatively CDP has produced a verification template to be completed by verifiers as a replacement for the standard verification statement as evidence of verification completed. This is to allow for verifiers whose standard assurance statement does not cover the points requested by CDP to demonstrate how the reporting company has met those requirements and therefore allow them to gain the appropriate credit from CDP. The CDP verification template can be downloaded from <https://www.cdproject.net/en-US/Respond/Pages/verification.aspx>. Companies gaining verification as part of the EU ETS can provide a screen shot of the EU ETS database to show that their data had been verified and accepted. Evidence requirements for companies that are reporting “No third party verification – regulatory CEMS required” can include letters/receipts from the regulator, database screenshots or RATA testing certificates as long as they provide the evidence listed in the question level guidance (see the guidance for the column to which your document is attached).

More information on verification

Further information to support companies in undertaking verification activities can be found in CDP’s verification white paper: see <https://www.cdproject.net/Documents/Verification-of-Climate-Data.pdf>.

- **Disclosure Score:** Disclosure points are awarded for this question. Points are awarded for completing columns 1 and 2 and also for the provision of a statement. Please note that hyperlinks will not be scored even if they are part of the attachment. Please provide all the relevant documents as attachments. The statement must relate to GHG emissions. If another source of data (e.g. a CSR report) has been verified, this should be attached alongside the statement.

If the verification/assurance process is completed, the statement should meet and include the following criteria to score points:

- It clearly relates to GHG emissions’ verification/assurance;
- It relates to the relevant scope;
- It clearly states the opinion and type of verification/assurance that has been given and the verification standard* used. These should match the selections made in columns 1 and 2;
- It covers the current reporting year.

If the verification/assurance process is not yet completed and last year’s statement is being provided instead, the statement should meet and include the following:

- It clearly relates to GHG emissions’ verification/assurance;
- It relates to the relevant scope;



- (iii) It clearly states the opinion and type of verification/assurance that has been given and the verification standard* used;
- (iv) It covers the 12-month period prior to the current reporting year.

In addition, in both of the instances given above, disclosure points will not be awarded if a statement is clearly not an assessment of the accuracy and completeness of the reported GHG information, including the emissions figure and its conformity to pre-established GHG accounting and reporting principles and it has not been completed by an independent third party to appropriate standards*.

- Performance Score: Where maximum disclosure points are achieved, this question is also eligible for performance scoring.

* Please see Box 16 for details of accepted verification standards.

Q8.6c: Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emission Monitoring Systems (CEMS)

This question only appears if you have selected “No third party verification or assurance – regulatory CEMS required” in answer to question 8.6.

Please complete your response to this question in the table provided in the ORS and reproduced below.

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
Select from: CFR 40 Part 75 Other, please specify	Select from: More than 0% but less than or equal to 20% More than 20% but less than or equal to 40% More than 40% but less than or equal to 60% More than 60% but less than or equal to 80% More than 80% but less than or equal to 90% More than 90% but less than or equal to 100%	Text box	Attach your document here, see below for further details.

If you wish to complete multiple rows, use the “Add Row” button to the bottom right of the table. See below for instructions on how to complete the columns.

- Regulation: This should be the regulation under which the use of CEMS is mandated for the purpose of measuring greenhouse gases. Select from:
 - CFR 40 Part 75 – this refers to the US Code of Federal Regulations Title 40, Part 75 on Continuous Emissions Monitoring, administered by the US Environmental Protection Agency
 - Other, please specify – if you select this option please provide the name of the regulation in the text box that appears
- % of emissions covered by the system: Identify the percentage of your emissions that are covered under this regulation and for which you collect CEMS data.

- Compliance period: Please enter the compliance period that relates to the submitted data. If the regulator accepts data at specific frequencies enter the relevant period, e.g. 1 April 2011 – 31 March 2012 for an annual process, 1 April 2011 – 30 September 2012 for a bi-annual process etc. If it is a continuous process enter the period under which you are reporting to CDP and for which you have appropriate documentation to show compliance during that period.
- Evidence of submission: Click on “Browse” to locate the appropriate file and then “Attach” to attach the document to the response. If you have multiple documents for a single verification (e.g. if you have multiple facilities under one regulatory regime) you should attach these as a zip file. The document should provide evidence of the following:
 - That the date of data submission overlaps with the reporting period;
 - The regulation under which the CEMS data has been submitted;
 - Acceptance of the data by the regulatory authority;
 - That the data submitted includes GHG emissions.

- Disclosure Score: Disclosure points are awarded for this question. Points are awarded for completing columns 1, 2 and 3 and also for the provision of evidence (the attachment).

The evidence should meet and include the following criteria to score points:

- The date of data submission overlaps with the reporting period
- The regulation under which the CEMS data has been submitted is stated
- Evidence of acceptance of the data by the regulatory authority is clear
- The data submitted includes GHG emissions.

Disclosure points will not be awarded if the regulatory regime does not require CEMS (regardless of whether it allows CEMS) or if the data collection by CEMS has been done outside of a regulatory regime. If the regime requires a further level of third party verification, this should be reported under question 8.6b.

- Performance Score: Where maximum disclosure points are achieved, this question is also eligible for performance scoring.

Q8.7: Please indicate the verification/assurance status that applies to your Scope 2 emissions

Please respond to this question by selecting one of the options from the list below, which will available as a drop down menu in the ORS.

- No emissions data provided
- No third party verification or assurance
- Third party verification or assurance underway but not yet complete - first year it has taken place
- Third party verification or assurance underway but not yet complete - last year’s statement available
- Third party verification or assurance complete

Note that this question applies to Scope 2 emissions only. CDP regards verification/assurance as a process undertaken by an independent third party. Please only state that you have had or are having verification/assurance carried out if it is by an independent third party. If you have had a proportion of your Scope 2 emissions verified, please select the option that applies to these emissions; you will be given an opportunity in question 8.7a to provide further details on this. It is recognized that for some companies, the verification/assurance schedule is out of synchronization with the CDP disclosure process and therefore it is

impossible to complete the verification/assurance process before the CDP deadline. Where this is the case you should select the verification or assurance underway option that best describes your situation.

In subsequent questions companies will be asked to provide evidence of the third party verification that they select here. Companies are advised to verify that their evidence can demonstrate all of the requirements set by CDP before answering this question to confirm that their activities comply, e.g. by consulting with their verifier/assurer. Full details are provided in the guidance for question 8.7b. If certain information requirements set by CDP are not available in the standard assurance statement provided by your verifier, CDP have produced a template that can be used in conjunction with the original assurance statement – see **Box 16** for further details.

If you select either “Third party verification or assurance underway but not yet complete - first year it has taken place”, “Third party verification or assurance underway but not yet complete - last year’s statement available”, or “Third party verification or assurance complete” you will be directed to questions 8.7a and 8.7b. If you select “No emissions data provided” or “No third party verification or assurance” you will be directed to the next question, question 8.8.

- **Disclosure Score:** Disclosure points awarded for selection of an option from the drop down menu. Note that companies that select “No emissions data provided” or “No third party verification or assurance” will be scored out of the maximum points available for questions 8.7, 8.7a and 8.7b and therefore their overall score for this section will be adversely affected.
- **Performance Score:** There are no performance points awarded for this question.

Q8.7a: Please indicate the proportion of your Scope 2 emissions that are verified/assured

This question only appears if you have selected “Third party verification or assurance underway but not yet complete - first year it has taken place”, “Third party verification or assurance underway but not yet complete - last year’s statement available”, or “Third party verification or assurance complete” in answer to question 8.7.

It may be the case that only a sub-section of your emissions have been verified/assured due to, for example, regulatory requirements. Please identify what proportion of your gross global Scope 2 emissions have been subject to the verification/assurance process described by selecting one of the following options:

- More than 0% but less than or equal to 20%
- More than 20% but less than or equal to 40%
- More than 40% but less than or equal to 60%
- More than 60% but less than or equal to 80%
- More than 80% but less than or equal to 90%
- More than 90% but less than or equal to 100%

Note that this question refers to the proportion of your business 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 operations that these US facilities represent. Alternatively, if you have sought organization wide verification, then you should select the last option, more than 90% but less than or equal to 100%.

If you are reporting verification or assurance underway, your answer should reflect the proportion of emissions that are being subject to verification/assurance for the current reporting year.

- **Disclosure Score:** Disclosure points are awarded for the selection of an option from the drop down menu
- **Performance Score:** There are no performance points associated with this question.

Q8.7b: Please provide further details of the verification/assurance undertaken, and attach the relevant statements

This question only appears if you have selected “Third party verification or assurance underway but not yet complete - first year it has taken place”, “Third party verification or assurance underway but not yet complete - last year’s statement available”, or “Third party verification or assurance complete” in answer to question 8.7.

Please complete your response to this question in the table provided in the ORS and reproduced below. The information required should be available on your verification/assurance statement or, if verification/assurance is still underway, should be available from your verifier/assurer.

If you are reporting verification or assurance underway, your entries into the table should reflect the proportion of emissions that are being subject to verification/assurance for the current reporting year, with the exception of the statement.

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 the event that this is the 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 minimum details required (see scoring notes overleaf).

Type of verification or assurance	Relevant standard	Attach the document

If you wish to complete multiple rows, use the “Add Row” button to the bottom right of the table. See below for instructions on how to complete the columns.

- Type of verification or assurance: Select from one of the following options (see question 8.6b for further guidance)
 - Not applicable
 - Limited assurance
 - Moderate assurance
 - Reasonable assurance
 - High assurance
 - Third party verification/assurance underway
- Relevant standard: Select from one of the following options (see question 8.6b for guidance)
 - AA1000AS
 - ASAE3000
 - Assurance Standard 3410N
 - Attestation standards established by AICPA (AT101)
 - Canadian institute of chartered accountants (CICA) Handbook: Assurance Section 5025
 - CCX verification standard
 - Certified emissions measurement and reduction scheme (CEMARS)
 - Compagnie nationale des commissaires aux comptes (CNCC)
 - Corporate GHG verification guidelines from ERT
 - DNV verisustain protocol/ verification protocol for sustainability reporting

- o ERM GHG performance data assurance methodology
 - o ISAE3000
 - o ISO14064-3
 - o Korean GHG and energy target management system
 - o RevR6 procedure for assurance of sustainability report
 - o Spanish institute of registered auditors (ICJCE)
 - o The Climate Registry's general verification protocol
 - o Verification as part of Carbon Trust standard certification
 - o Other, please specify
- Attach the document: Use the browse and attach buttons to attach the relevant statement. See question 8.6b for guidance.

- Disclosure Score: Disclosure points are awarded for this question. Points are awarded for completing columns 1 and 2 and also for the provision of a statement. Please note that hyperlinks will not be scored even if they are part of the attachment. Please provide all the relevant documents as attachments. The statement must relate to GHG emissions. If another source of data (e.g. a CSR report) has been verified, this should be attached alongside the statement.

If the verification/assurance process is completed, the statement should meet and include the following criteria to score points:

- (i) It clearly relates to GHG emissions' verification/assurance;
- (ii) It relates to the relevant scope;
- (iii) It clearly states the opinion and type of verification/assurance that has been given and the verification standard* used. These should match the selections made in columns 1 and 2;
- (iv) It covers the current reporting year.

If the verification/assurance process is not yet completed and last year's statement is being provided instead, the statement should meet and include the following:

- (i) It clearly relates to GHG emissions' verification/assurance;
- (ii) It relates to the relevant scope;
- (iii) It clearly states the opinion and type of verification/assurance that has been given and the verification standard* used;
- (iv) It covers the 12-month period prior to the current reporting year.

In addition, in both of the instances given above, disclosure points will not be awarded if a statement is clearly not an assessment of the accuracy and completeness of the reported GHG information, including the emissions figure and its conformity to pre-established GHG accounting and reporting principles and it has not been completed by an independent third party to appropriate standards*.

- Performance Score: Where maximum disclosure points are achieved, this question is also eligible for performance scoring.

* Please see Box 16 for details of accepted verification standards.

Q8.8: Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?



Please respond to this question by selecting “Yes” or “No” from the drop down menu provided. If you select “Yes” you will be directed to question 8.8a (below); if you select “No” you will move onto the next page of the questionnaire.

You should respond “Yes” to this question if carbon dioxide emissions from biologically sequestered carbon are relevant regardless of whether you have the data available to provide a total emissions figure (this is the subject of question 8.8a below). In this context “relevant” is as defined in the GHG Protocol, meaning that it contains the information that users—both internal and external to the company—need for their decision making.

Companies should include emissions from the combustion of biologically sequestered carbon (i.e. carbon dioxide emission from burning biomass/biofuels) and emissions from fermentation. The GHG Protocol states that this must be reported separately from the three scopes. Note, this is a change in approach in the GHG Protocol which had previously only specified carbon dioxide emissions from the combustion of biologically sequestered carbon to be reported separately.

- **Disclosure Score:** Disclosure points are awarded for making a selection from the drop down menu.
- **Performance Score:** There are no performance points awarded for this question.

Q8.8a: Please provide the emissions in metric tonnes CO2

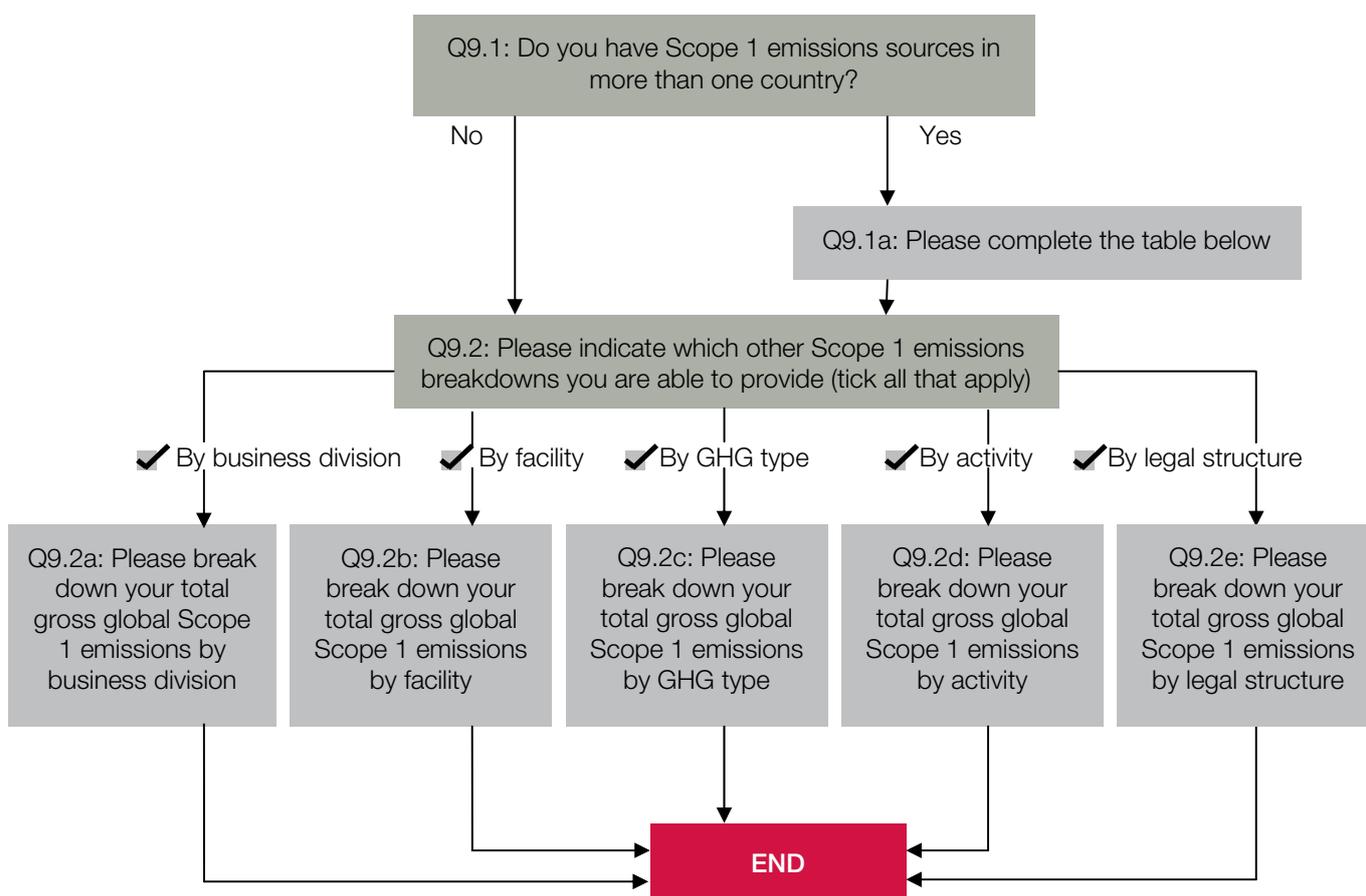
This question only appears if you answer “Yes” to question 8.8 (see above).

Please enter your total emissions of CO2 from biologically sequestered carbon in the data field provided, using a value of no more than 9999999999 (without commas) and up to 2 decimal places. Please do not include other GHGs emitted from the combustion of biologically sequestered carbon 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).

- **Disclosure Score:** Disclosure points are awarded for this question where a non-zero answer is provided.
- **Performance Score:** There are no performance points awarded for this question.

9.Scope 1 Emissions Breakdown

Question Pathway



General Guidance

Key Changes from 2012

The “Country/Region” drop down in questions 9.1a has been updated to include multinational regions which can be selected for the country breakdown. The option to select “Other” has been removed to avoid the reporting of unspecified regional breakdowns.

Question 9.2b has been amended to ask companies to report latitude and longitude coordinates in their facility breakdown information for Scope 1 emissions.

Question 9.2e is new and has been added to enable companies using the Climate Change Reporting Framework (CCRF) to provide their CCRF breakdown, since questions 8.1, 8.2b, c, d and 8.3b, c, d from 2012 have been removed to reflect an alignment on financial control boundary definition between the GHG Protocol and Climate Disclosure Standards Board.

Pre-population

If you responded to CDP last year, questions 9.1, 9.1a, 9.2, 9.2a, 9.2b, 9.2c and 9.2d on this page are eligible for pre-population. To take advantage of this function, click “copy from last year” prior to entering any data on the page. For questions 9.2a, 9.2b, 9.2c and 9.2d, please note that the business divisions/facilities/GHG types/activities you supplied last year will be populated into column 1 but that you will need to manually enter the relevant emissions data for this year into column 2, into the respective tables you have selected to copy from last year.

When using the “copy from last year” function for responses to question 9.1a, please note that only those countries that you selected from the list last year will be populated – where you used Other these selections will not be included and you will need to add a row and make appropriate additional selections from the drop down list.

Note that question 9.2e “By legal structure” was not available last year – if you wish to report this break down you will need to select it after you have clicked “copy from last year”.

SME version

None of the questions on this page are included in the SME questionnaire.

Specific Question Guidance

Q9.1: Do you have Scope 1 emissions sources in more than one country?

Please respond to this question by selecting “Yes” or “No” from the drop down menu provided in the ORS.

Please note that this question applies to Scope 1 emissions only.

If you select “Yes” you will be directed to question 9.1a; if you select “No” you will continue on to question 9.2.

- **Disclosure Score:** Disclosure points awarded for the selection of an option from the drop down menu.
- **Performance Score:** There are no performance points awarded for this question.

Q9.1a: Please complete the table below

This question only appears if you answer “Yes” to question 9.1.

Please use the table provided in the ORS (and reproduced below) to give details of the countries/regions in which you operate and their Scope 1 emissions in metric tonnes CO₂e.

Breaking down emissions to the level of country is useful to investors as this is often the level at which emissions-related legislation is introduced. Please note that, emissions should be attributed to individual countries wherever possible. Reporting country breakdown is considered best practice by CDP and CDP will consider in coming years its inclusion as scoring criteria.

Where states (or other sub-national bodies) have the right to introduce emissions-related legislation, companies operating in these states (or other sub-national bodies) may consider that breaking down emissions to a sub-national level is more informative. A limited amount of companies have made use in the past of the “Other: please specify” function that was previously available in this question to disclose emissions at sub-national level. These companies are invited to provide this breakdown as an attachment in further information, as this will no longer be possible in current system.



Where emissions are sufficiently small, or for parts of your business where your inventory does not allow a country level of granularity, use the available region options or the “Rest of world” option from the drop down menu to group emissions from a number of countries. Also, if your operations cannot be attributed to a single country you can use “International Waters” or “International Air Space”. Please see the technical note “Country Regions” for details around the available regions and their constituent countries, available at <https://www.cdproject.net/guidance>.

If you disclose the value for a region that overlaps with a country you are also disclosing, you should report the value for the region minus the emissions of that country. This implies, that if all emissions breakdown are added they should add to your scope 1 total.

For Electric Utility Sector Companies

Electric utilities may choose to direct data users and scorers to EU2 in response to this question. Do this by selecting “We are an Electric Utilities company – please see our response to EU2 instead of Q9.1a” from the drop down menu in column 1 and leave column 2 blank.

Country/Region	Scope 1 metric tonnes CO2e
Select from a drop down list of countries and regions. Please see the technical note “Country Regions” for details around the available regions and their constituent countries, available at https://www.cdproject.net/guidance .	Enter the total Scope 1 emissions for that country or region in metric tonnes CO2e. This field accepts numbers up to 99999999999 (without commas) and up to 2 decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.

- **Disclosure Score:** Emissions figures for more than one country/ region (or at least one country/region and “Rest of World”) must be given in order to score disclosure points for this question.
- **Performance Score:** There are no performance points awarded for this question.

Q9.2: Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

You should identify those that are relevant to your business/sector and as such, investors would find interesting. Identify those that are relevant by ticking the boxes provided in the ORS adjacent to each of the four options – this will drive questions 9.2a-e, where further details will be requested. The options available are:

- By business division
 - This figure 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.
- 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)”
 - 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.



- 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 GHG type
 - There are various types of greenhouse gases, but the Kyoto Protocol focuses on six internationally recognized GHGs comprised of the following: Carbon dioxide (CO₂); Methane (CH₄); Nitrous oxide (N₂O); Hydrofluorocarbons (HFCs) family of gases; Perfluorocarbons (PFCs) family of gases; and Sulphur hexafluoride (SF₆) (Note: emissions of GHGs within a “family” of gases should be summed). Only these gases are requested but companies can provide other GHGs if they want, using the “Other” option.
- By activity
 - Relevant activities should be defined by the reporting company but 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 to future regulation.
- By legal structure
 - Companies that wish to report under the Climate Change Reporting Framework (CCRF) can select this option.

For Oil and Gas Sector Companies

Oil and gas sector companies are requested to provide breakdowns of emissions by value chain segment in the oil & gas module question OG2 and by activity in OG3. They can direct data-users to the answers to these questions from column 1 of the tables below, identifying the relevant question in the sector module, and leaving column 2 blank.

For ICT sector companies:

Companies responding to the ICT sector module can complete question 9.2c by identifying their significant business activity areas in the ICT sector module and then responding to the subsequent questions on emissions for each relevant business activity. Companies responding in this way should redirect data users by referencing the ICT sector module in column 1 of the relevant table.

- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

Q9.2a: Please break down your total gross global Scope 1 emissions by business division

This question only appears if you have ticked “By business division” in response to question 9.2.

Please use the table provided in the ORS (and reproduced below) to complete your response.

Business division	Scope 1 emissions (metric tonnes CO ₂ e)
Use this text field to enter the name of your business division	Enter the total Scope 1 emissions for that division, using numbers without commas, up to 99999999999 and 2 decimal places.

	Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.
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Use the “Add Row” button to the bottom right of the table to enter multiple rows.

- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

Q9.2b: Please break down your total gross global Scope 1 emissions by facility

This question only appears if you have ticked “By facility” in response to question 9.2.

Please use the table provided in the ORS (and reproduced below) to complete your response.

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Use this text field to enter the name of your facility	Enter the total Scope 1 emissions for that facility, using numbers without commas, up to 99999999999 and 2 decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.	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

Use the “Add Row” button to the bottom right of the table to enter multiple rows.

CDP now provides a place for companies to provide basic data for the geo-location of their facilities. Please be aware that this information will not be scored. This information will be useful to link CDP data with other sources of information and can be useful for investors trying to assess physical risks of climate change and exposure of assets. It will also be useful for CDP in order to link the information requested by investors to cities preparing their inventory for CDP. Please check **Box 17**, below for details on the latitude and longitude requirements. If companies prefer, they can attach an Excel spreadsheet with location (longitude and latitude) data for their facilities at the bottom of the page.

Box 17: 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. In case 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 in “Further Information”.

In case 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 <http://www.itouchmap.com/latlong.html> allows you to enter an address or identify a location on a map and will return the latitude and longitude coordinates.

www.ityouchmap.com/latlong.html

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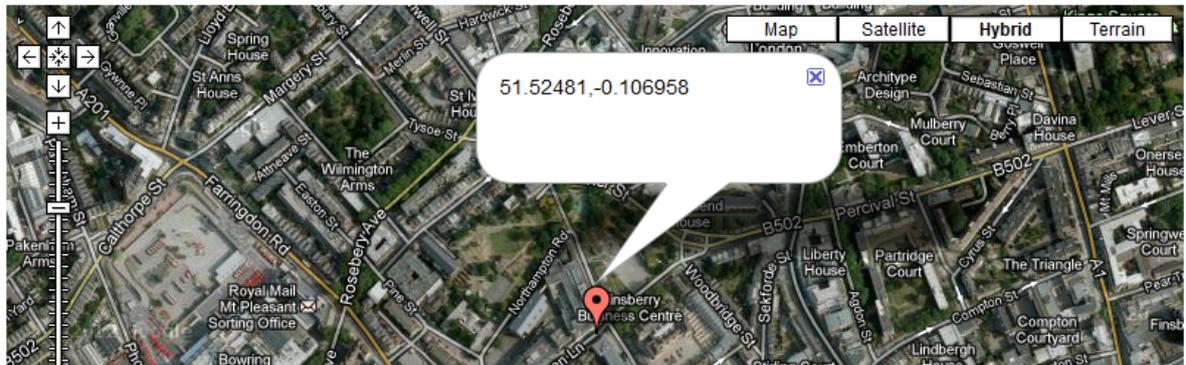
To find the latitude and longitude of a point **Click** on the map, **Drag** the marker, or enter the...

Address: 40 Bowling Green Lane, London, UK

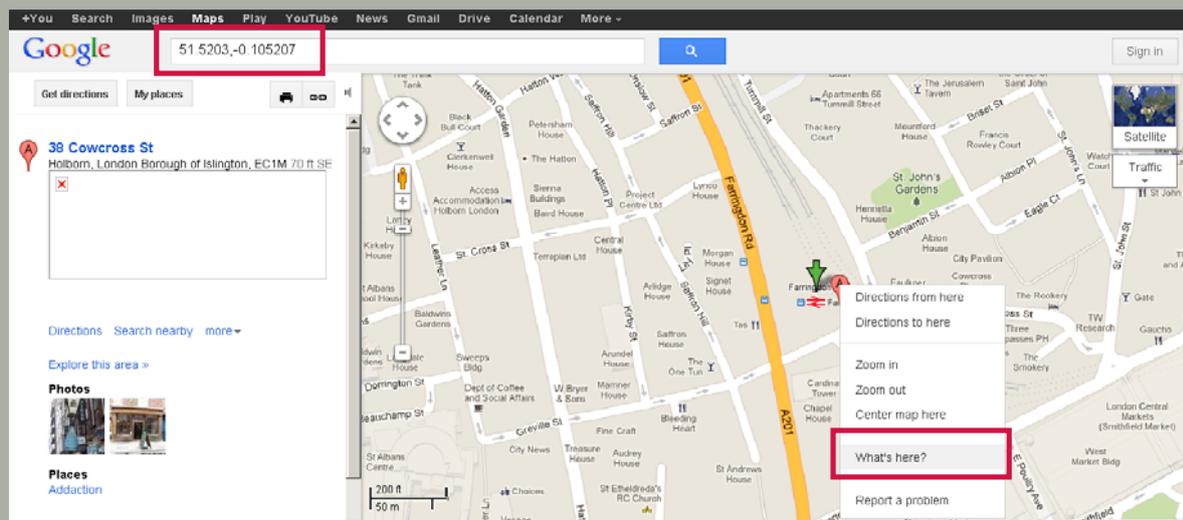
Map Center: [Get Address](#) - [Land Plat Size](#) - [Street View](#) - [Google Earth 3D](#) - [Area Photographs](#)

Try out the [Google Earth Plug-in](#). Google Earth gives you a 3D look of the area around the center of the map, which is usually your last click point, and includes latitude, longitude and elevation information.

Latitude and Longitude of a Point

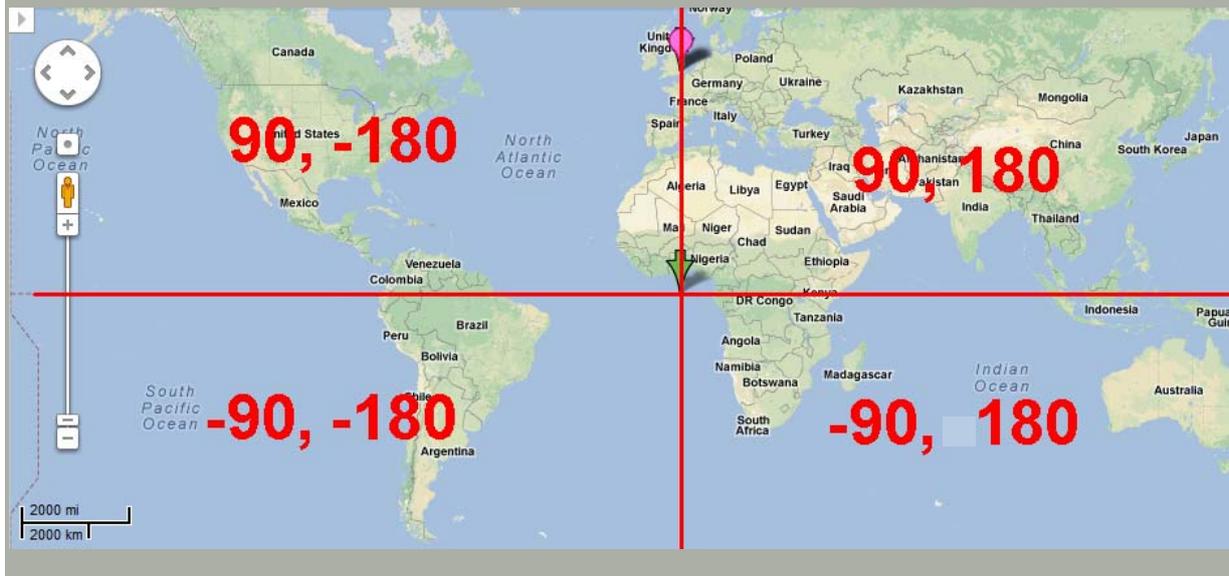


Google Maps also allows you to find the latitude and longitude of any point. When you are in Google Maps, if you right click your mouse in any place of the map, you will find an option “What’s here?”. If you click that option the latitude and longitude will be displayed in the Google search bar.



In this example (Farringdon tube station, in London) the latitude would be 51.5203 and the longitude 0.105207. Please be aware that a negative value means a place west of the Greenwich Meridian and a positive value a place to the east.

You can find in the picture below how latitude and longitude vary according to the quadrants relative to Greenwich meridian and the Equator line.



- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

Q9.2c: Please break down your total gross global Scope 1 emissions by GHG type

This question only appears if you have ticked "By GHG type" in response to question 9.2.

Please use the table provided in the ORS (and reproduced below) to complete your response.

GHG type	Scope 1 emissions (metric tonnes CO ₂ e)
Select from: CO ₂ CH ₄ N ₂ O HFCs PFCs SF ₆ Other, please specify	Enter the total Scope 1 emissions for that GHG type, using numbers without commas, up to 9999999999 and 2 decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.

Use the "Add Row" button to the bottom right of the table to enter multiple rows.

- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

Q9.2d: Please break down your total gross global Scope 1 emissions by activity

This question only appears if you have ticked “By activity” in response to question 9.2.

Please use the table provided in the ORS (and reproduced below) to complete your response.

Activity	Scope 1 emissions (metric tonnes CO2e)
Use this text field to enter the name of your activity	Enter the total Scope 1 emissions for that activity, using numbers without commas, up to 99999999999 and 2 decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.

Use the “Add Row” button to the bottom right of the table to enter multiple rows.

- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

Q9.2e: Please break down your total gross global Scope 1 emissions by legal structure

This question only appears if you have ticked “By legal structure” in response to question 9.2.

Please use the table provided in the ORS (and reproduced below) to complete your response.

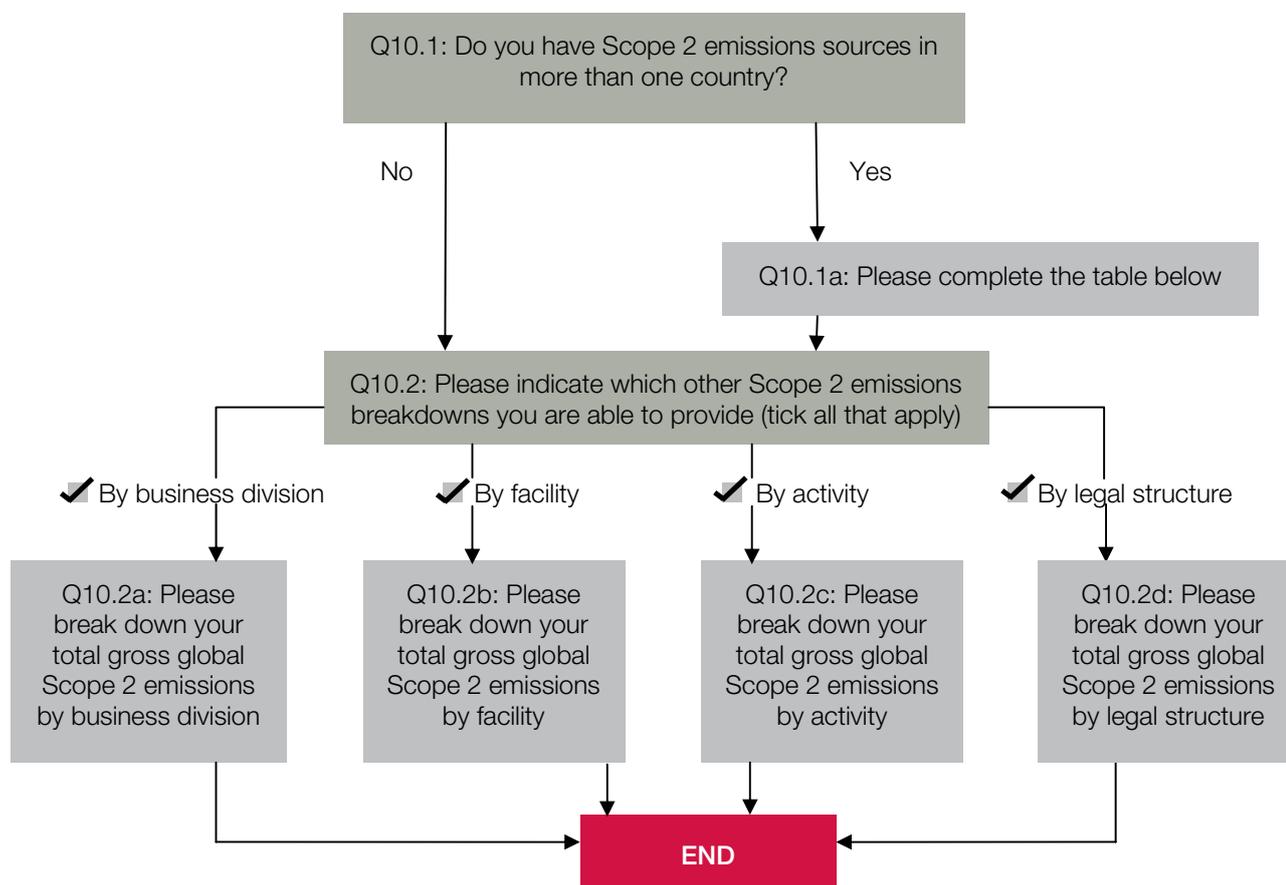
The latest version of the Climate Change Reporting Framework is available at <http://www.cdsb.net/ccrf>.

Legal structure	Scope 1 emissions (metric tonnes CO2e)
Parent company and subsidiaries under financial control including leased assets treated as assets of the consolidated group for financial accounting purposes, Part 1	For each row, enter the total Scope 1 emissions for that activity, using numbers without commas, up to 99999999999 and 2 decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.
Joint ventures, Part 1	
Associates, Part 2	
Emissions from operationally controlled and/or other entities/activities/facilities, Part 2	

- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

10.Scope 2 Emissions Breakdown

Question Pathway



General Guidance

Refer to Box 14 when calculating Scope 2 emissions.

Key Changes from 2012

The “Country/Region” drop down in questions 10.1a has been updated to include multinational regions which can be selected for the country breakdown. The option to select “Other” has been removed to avoid the reporting of unspecified regional breakdowns.

To align with the emerging approach for green energy accounting by the GHG Protocol, Section 11 from 2012 on Scope 2 Contractual Emissions has been removed and two columns have been added to question 10.1a for i) Purchased and consumed electricity, heat, steam or cooling, and ii) Purchased and consumed low carbon electricity, heat, steam or cooling.

Question 10.2d is new and has been added to enable companies using the Climate Change Reporting Framework (CCRF) to provide their CCRF breakdown, since questions 8.1, 8.2b, c, d and 8.3b, c, d from 2012 have been removed to reflect an alignment on financial control boundary definition between the GHG Protocol and Climate Disclosure Standards Board.

Pre-population

If you responded to CDP last year, questions 10.1, 10.1a, 10.2, 10.2a, 10.2b and 10.2c on this page are eligible for pre-population. To take advantage of this function, click “copy from last year” prior to entering any data on the page. For questions 10.2a, 10.2b and 10.2c please note that the business divisions/facilities/activities you supplied last year will be populated into column 1 but that you will need to manually enter the relevant emissions data for this year into column 2, into the respective tables you have selected to copy from last year.

When using the “copy from last year” function for responses to question 10.1a, please note that only those countries that you selected from the list last year will be populated – where you used Other these selections will not be included and you will need to add a row and make appropriate additional selections from the drop down list.

Note that question 10.2d “By legal structure” was not available last year – if you wish to report this break down you will need to select it after you have clicked “copy from last year”.

SME version

None of the questions on this page are included in the SME questionnaire.

Specific Question Guidance

Q10.1: Do you have Scope 2 emissions sources in more than one country?

Please respond to this question by selecting “Yes” or “No” from the drop down menu provided in the ORS.

Please note that this question applies to Scope 2 emissions only.

If you select “Yes” you will be directed to question 10.1a; if you select “No” you will continue on to question 10.2.

- **Disclosure Score:** Disclosure points awarded for the selection of an option from the drop down menu.
- **Performance Score:** There are no performance points awarded for this question.

Q10.1a: Please complete the table below

This question only appears if you answer “Yes” to question 10.1.

Please use the table provided in the ORS (and reproduced overleaf) to give details of the countries/regions in which you operate and their Scope 2 emissions in metric tonnes CO₂e.

Breaking down emissions to the level of country is useful to investors as this is a common source of legislation regarding GHGs.

Where emissions are sufficiently small, or for parts of your business where your inventory does not allow a country level of granularity, you can use one of the aggregated regions pre-defined by CDP. Also, if your operations cannot be attributed to a single country you can use “International Waters” or “International Air Space”. Please see the technical note “Country Regions” for details around the available regions and their constituent countries, available at <https://www.cdproject.net/guidance>.

Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)
Select from a drop down list of countries and regions. Please see the technical note “Country Regions”, for details around the available regions and their constituent countries, available at https://www.cdproject.net/guidance .	Enter the total Scope 2 emissions for that country or region in metric tonnes CO2e. This field accepts numbers up to 9999999999 (without commas) and up to 2 decimal places.	Enter the amount of purchased and consumed electricity, heat, steam or cooling in MWh. This field accepts numbers up to 9999999999 (without commas) and up to 2 decimal places.	Enter the amount of purchased and consumed low carbon electricity, heat, steam or cooling in MWh. This field accepts numbers up to 9999999999 (without commas) and up to 2 decimal places.

New features and scope 2 accounting

This year you will find two new columns together with the country/region breakdown: “Purchased and consumed electricity, heat, steam or cooling (MWh)” and “Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)”.

These columns have been added to introduce further transparency around companies accounting on Scope 2. “Purchased and consumed electricity, heat, steam or cooling (MWh)” relates to the total amount of energy consumed and that constitutes the “activity data” for your scope 2 figure. Electricity consumed is usually the big portion of the emissions under Scope 2. However, if your company has also included purchased and consumed steam, heating and cooling, that activity data should also be reported in here.

“Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)” should be used to disclose the amounts of electricity (and heat, steam or cooling) that was accounted at a zero emission factor (0 tCO2e/MWh) or that can be considered “low carbon” (please see **Box 18** for criteria on what to consider as “low carbon”) and that are supported by appropriate tracking instruments (please see **Box 15** for what are considered “appropriate tracking instruments”). This means that any portion of electricity (and heat, steam or cooling) that comes from renewable/low carbon sources and is incorporated into a distribution grid average/residual mix, and that is not backed by some kind of instrument retired by the company, or by someone on their behalf should not be counted.

Please note that it is logically expected that “Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)” will be a subset of “Purchased and consumed electricity, heat, steam or cooling (MWh)” that is, the former figure should be equal or lower than the later.

The reason for providing this information at the region/country breakdown is one of practical order. Scope 2 emissions from electricity are usually calculated using some type of country/regional level emission factors². For countries like USA, Canada or Brazil where several grids can exist within a country and emission factors

² E.g. the USA (one country) will have several distinct grids and typically companies report using eGRID sub-region emission factors. In Europe each country usually belongs to one single grid and the emission factor is calculated for the country, irrespective of the grid.

are calculated at state/sub-region, companies are welcome to provide further breakdown details in attachment, if they wish. Please notice that further disclosures related with the amounts accounted at zero, is required at the energy section, with the aim to provide full transparency on Scope 2 accounting claims.

Box 18: Low carbon energy

Unfortunately there is no precise, generally accepted definition of what “low carbon energy” is. No definition is found also in the GHG Protocol standards or ISO. Nevertheless, it can be reasonably established that “low carbon energy” will be any type of energy that will have no direct emissions and which the indirect emissions can usually be considered as negligible considering the life cycle of the given technology. It is generally accepted as such power technologies like wind, solar, tidal, geothermal and most hydro power. Nuclear power is also usually considered low carbon, although other considerations make it a more contentious technology. Natural gas, combined cycle gas turbine and Combined Heat and Power, despite being less carbon intensive than other means of electricity production like coal, are not considered here in the definition of low carbon.

Certain jurisdictions might have electricity tracking instruments for all types of power, including technologies such as CHP, gas or coal. In this case (which is expected to occur exceptionally) companies can also disclose the use of those instruments in question 11.4, but should not consider that power as low carbon for purpose of question 10.1a, in accordance with the guidance given here on “low carbon energy”.

- **Disclosure Score:** Emissions figures for more than one country/ region (or at least one country and “Rest of World”) must be given in order to score disclosure points for this question. Columns 1 and 2 must be completed for all rows to score points for this question.
- **Performance Score:** There are not performance points awarded for this question

Q10.2: Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

You should identify those that are relevant to your business/sector and as such, investors would find interesting. Identify those that are relevant by ticking the boxes provided in the ORS adjacent to each of the four options – this will drive questions 10.2a-d, where further details will be requested.

The options available are:

- By business division
 - This figure 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.
- 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)*”.
 - 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.



- 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
 - 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 or facilities. Reporting by activity allows a more in depth understanding of business risk to future regulation.
- By legal structure
 - If you wish to report using the Climate Change Reporting Framework (CCRF), select this option.

For Oil and Gas Sector Companies

Oil and gas sector companies are requested to provide the breakdown of emissions by value chain segment as shown in OG2. They can direct data-users to the answers to OG2 in column 1 of the relevant table below, leaving column 2 blank.

For ICT sector companies:

Companies responding to the ICT sector module can complete question 10.2c by identifying their significant business activity areas in the ICT sector module and then responding to the subsequent questions on emissions for each relevant business activity. Companies responding in this way should redirect data users by referencing the ICT sector module in column 1 of the relevant table.

- **Disclosure and Performance:** This question is not scored.

Q10.2a: Please break down your total gross global Scope 2 emissions by business division

This question only appears if you have ticked “By business division” in response to question 10.2.

Please use the table provided in the ORS (and reproduced below) to complete your response. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.

Business division	Scope 2 emissions (metric tonnes CO2e)
Use this text field to enter the name of your business division	Enter the total Scope 2 emissions for that division, using numbers without commas, up to 99999999999 and 2 decimal places.

Use the “Add Row” button to the bottom right of the table to enter multiple rows.

- **Disclosure Score:** There are no disclosure points awarded for this question.
- **Performance Score:** There are no performance points awarded for this question.



Q10.2b: Please break down your total gross global Scope 2 emissions by facility

This question only appears if you have ticked “By facility” in response to question 10.2.

Please use the table provided in the ORS (and reproduced below) to complete your response.

Facility	Scope 2 emissions (metric tonnes CO2e)
Use this text field to enter the name of your facility	Enter the total Scope 2 emissions for that facility, using numbers without commas, up to 99999999999 and 2 decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.

Use the “Add Row” button to the bottom right of the table to enter multiple rows.

- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

Q10.2c: Please break down your total gross global Scope 2 emissions by activity

This question only appears if you have ticked “By activity” in response to question 10.2.

Please use the table provided in the ORS (and reproduced below) to complete your response. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.

Activity	Scope 2 emissions (metric tonnes CO2e)
Use this text field to enter the name of your activity	Enter the total Scope 2 emissions for that activity, using numbers without commas, up to 99999999999 and 2 decimal places.

Use the “Add Row” button to the bottom right of the table to enter multiple rows.

- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

Q10.2d: Please break down your total gross global Scope 2 emissions by legal structure

This question only appears if you have ticked “By legal structure” in response to question 10.2.

The latest version of the Climate Change Reporting Framework is available at http://www.cdsb.net/file/116/cdsb-framework-2012_webto.pdf.



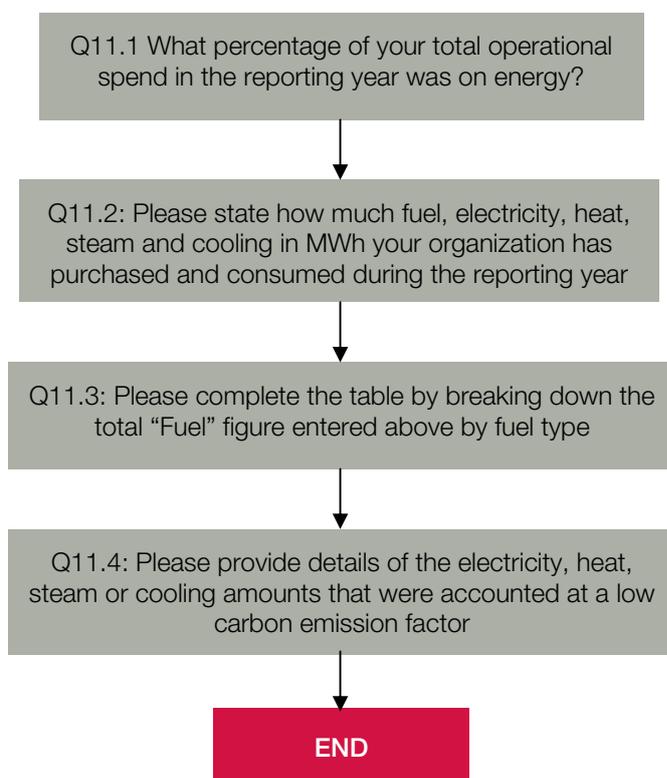
Please use the table provided in the ORS (and reproduced below) to complete your response. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.

Legal structure	Scope 2 emissions (metric tonnes CO2e)
Parent company and subsidiaries under financial control including leased assets treated as assets of the consolidated group for financial accounting purposes, Part 1	For each row, enter the total Scope 2 emissions for that activity, using numbers without commas, up to 99999999999 and 2 decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.
Joint ventures, Part 1	
Associates, Part 2	
Emissions from operationally controlled and/or other entities/activities/facilities, Part 2	

- Disclosure Score: There are no disclosure points awarded for this question.
- Performance Score: There are no performance points awarded for this question.

11. Energy

Question Pathway



General Guidance

The energy data provided in this section should be consistent with the organizational boundary (and any exclusions) defined in Section 8 of the questionnaire.

Key Changes from 2012

Column 2 (MWh) in questions 11.2 and 11.3 have been amended to allow figures up to 999999999999 to be entered.

Question 11.4 is new and has been added to allow disclosure of information related to electricity, heat, steam or cooling amounts accounted at a low carbon emissions factor.

Disclosure scoring has been introduced for question 11.4.

Pre-population

None of the questions on this page are eligible for pre-population if you responded last year.

SME version

None of the questions on this page are included in the SME questionnaire.

Specific Question Guidance

Q11.1: What percentage of your total operational spend in the reporting year was on energy?

The aim of this question is to identify the degree to which your organization's activities are sensitive to energy costs and energy supply. For this purpose the definition of "operational spend" should be the sum of the costs on energy for following two types of costs to the business:

- 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; and
- 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.

"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.

Please respond to this question by selecting one the options provided below:

- 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%

Please 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.).



- **Disclosure Score:** Disclosure points awarded for this question where a selection is made from the drop down menu.
- **Performance Score:** There are no performance points awarded for this question.

Q11.2: Please state how much fuel, electricity, heat, steam and cooling in MWh your organization has purchased and consumed during the reporting year

Not all of the energy types requested – fuel (Scope 1), electricity, heat, steam and cooling (Scope 2) – may be relevant to your company. You are requested to complete your response in the table provided in the ORS, as reproduced overleaf. If you do not purchase and consume any of a particular energy type, then enter 0 (zero) into the 2nd column; if you purchase and consume that energy type but have not measured it, leave column 2 blank. Further information on the energy types specified, use of terminology related to “purchase and consumption” and the conversion to MWh is provided below.

GHG emissions are closely linked with energy consumption. Energy related activities represent, for many sectors, the most significant GHG emitting activity sources. Thus tracking GHG emissions together with energy consumption is of vital importance to understand the GHG emission profile of companies.

In this question, CDP aims to characterize the energy consumption profile of companies, in a way that closely matches with current GHG accounting guidelines, as proposed by the GHG protocol, and at the same time requiring minimal amounts of energy information from companies.

All energy should be accounted as “secondary energy” - this is, accounted by the energy content of the energy carriers that are effectively used – and should relate to consumption or purchase and consumption of the energy carrier. The distinction between “consumption” and “purchase and consumption” is an important one and deserves further explanation.

For Scope 1 emissions, a company will account all energy activities that lead to the consumption of fossil fuels for energy purposes, irrespectively of whether the company has bought the energy carrier (fuel oil, gas, etc) or has produced it itself. Most importantly, it will account for the energy content at the point of its first transformation. This is, if a company burns natural gas to produce steam, it is clear that the consumption of energy is in the form of steam, however, what it should actually account for is for the energy content of the natural gas that it used to produce the steam. Only in this way, will the reporting of energy be consistent with the GHG Protocol, given that these emissions will be accounted as Scope 1. Likewise, this steam should not be accounted as a Scope 2 figure, since it is not “purchased and consumed steam”, but simply “consumed steam”.

Please note that if your company produced a given energy carrier (e.g. steam) and sells it to other companies, you should not account or report that energy carrier (steam) as consumed, but you should account for the emissions generated for its production (e.g. by burning natural gas) in your Scope 1 figure and the energy content of natural gas, as consumed fuel. If you wish to make comments about similar situations of transfer of energy carriers between companies, please do it in further information, or attach a document with further information.

For Scope 2 emissions, the company will account for the amount of energy carriers (electricity, steam, heat, cool) that it has purchased and consumed (or wasted through losses). As with Scope 1 energy sources, it should account for the energy content of the carriers when they are bought, before any transformation and, in most cases, in accordance to billing information. This means that the following cases will not be accounted for in the energy figures provided in this question:



- Electricity consumed and generated from own sources either for example, by using combined heat and power facilities or by renewable sources. In this case, this electricity is only consumed and is part of the energy intensity of the company, but is not bought and as such, should not be accounted under Scope 2.
- Electricity purchased and re-sold to others – in this case there is no effective consumption of the energy carrier which is passed to others, so no emissions should appear in the Scope 2 figures - besides any due to losses which will be considered equivalent to an involuntary consumption. Thus no energy reported.

CDP will be looking to strengthen the robustness of its energy-related concepts, in order to better establish the link between energy consumption and emissions. In question 11.2 companies are asked to report their electricity consumption in MWh because this is the most common unit for measuring electricity. CDP also asks companies to report all other energy types - fuel combustion, and consumption of heat, steam and cooling- in MWh because it allows comparability between these different components, which in turn facilitates the analysis of the responses. So for instance, if a cement factory consumes 10,000,000 MWh of electricity and 500,000,000 MWh of primary energy for combustion purposes, by having these two measures in the same unit the two can be added up to produce a total energy consumption figure. The use of a common unit can also allow the comparison between different companies' energy consumption figures. For instance, if a similar installation generated its own electricity in a combined heat and power plant and the electricity consumed was also reported in MWh, this would be easily comparable with the cement factory's energy consumption figures.

Energy type	MWh
Fuel	In this column enter the total energy figure for each energy type in MWh, using no more than 999999999999 without commas and up to two decimal places. Please state zero if you do not consume this energy type.
Electricity	As above
Heat	As above
Steam	As above
Cooling	As above

Fuel

If your organization produces fuel, then you will likely use some of this fuel to meet your own needs either in your core operations (e.g. using this fuel to generate electricity for sale) or in ancillary operations (e.g. for use in on site buildings or vehicles). This question pertains to purchased and self-produced fuels that your organization has used. Please add the figures to generate a total figure for consumed fuel.

Fuel can be measured, for example, in terms of:

- Energy content: kilojoules (KJ), British thermal units (Btu), or therms;
- Volume: m³ or liters; and
- Mass: metric tonnes or short tons

The Investor CDP 2013 information request requires fuel inputs to be standardized to megawatt hours (MWh), which is commonly used for measuring electricity consumption. More guidance is available in the following technical notes, "Conversion of fuel data to MWh" and "Fuel Definitions", available at <https://www.cdproject.net/guidance>.



If you do not have exact consumption data, you may alternatively estimate your company’s consumption by reviewing fuel and energy purchasing orders.

Electricity

If you do not have your data on purchased electricity in MWh, it can readily be converted from kWh or GWh into MWh.

- To convert from kWh to MWh, divide the figure by 1000;
- To convert from GWh to MWh, multiply the figure by 1000.

Heat and steam

Heat and steam may be bought in British thermal units (Btu), joules (J), and therms, which can be converted to MWh using a calculation tool such as www.onlineconversion.com. Heat is also sometimes bought in kWh, making conversion to MWh straightforward.

Steam may also be bought in units of pounds. Conversion is more difficult as the energy content of the steam varies with temperature and pressure. We would refer organizations to [The Climate Registry’s General Reporting Protocol](#). Chapter 15, section 15.2, step 1 explains how to calculate the energy content of steam.

Cooling

This is frequently bought in refrigeration-ton hours. 1 ton-hour=12,000 Btu=0.003516 MWh.

- **Disclosure Score:** Disclosure points awarded for this question, with maximum points where all rows have been completed (zero should be stated where the energy type is not consumed).
- **Performance Score:** There are no performance points awarded for this question.

Q11.3: Please complete the table by breaking down the total “Fuel” figure entered above by fuel type

Please enter your response to this question in the table provided in the ORS and reproduced below.

Fuels	MWh
Select from: Anthracite; Asphalt/ bitumen; Aviation gasoline; Biodiesels; Biogas; Biogasoline; Bituminous coal; BKB; Blast furnace gas; Brown coal; Brown coal briquettes; Butane; Charcoal; Coke breeze; Coke oven coke; Coke oven gas; Coking coal; Crude oil; Diesel/Gas oil; Distillate fuel oil No 1; Distillate fuel oil No 2; Distillate fuel oil No 3; Distillate fuel oil No 4; Distillate fuel oil No 5; Distillate fuel oil No 6; Ethane; Gas works gas; Jet gasoline; Jet kerosene; Kerosene; Landfill gas; Lignite; Lignite coke; Liquefied Natural Gas (LNG); Liquefied petroleum gas (LPG); Lubricants; Metallurgical coke; Methane; Motor gasoline; Municipal waste; Naphtha; Natural gas; Oil shale and tar sands; Orimulsion; Oxygen steel furnace gas; Patent fuel; Peat; Petroleum coke; Pitch; Propane; Refinery feedstocks; Refinery gas; Refuse-derived fuel; Residual fuel oil; Semi- coke; Shale oil; Sludge gas; Sub bituminous coal; Sulphite lyes (Black liquor); Tar; Town gas or city gas; Turpentine; Vegetable oils; Waste oils; Waste plastics; Waste tire derived fuels; Waxes; White spirit/ SBP; Wood or wood waste; Other, please specify	In this column enter the total figure for each fuel type in MWh, using no more than 999999999999 without commas and up to two decimal places

If a fuel is not listed, please select the "Other, please specify" option and provide the name of fuel. Additionally, all fuels (with definitions) are available in the technical note “Fuel definitions”, available at <https://www.cdproject.net/guidance>. This list comprises those fuels given in the GHG Protocol Stationary Combustion Tool and other fuels common to mobile combustion.



- **Disclosure Score:** There are disclosure points awarded for this question, where both columns are completed.
- **Performance Score:** There are no performance points awarded for this question.

Q11.4: Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor

Please note this is a new question in CDP information request. Please enter your response to this question in the table provided in the ORS and reproduced below.

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comments
Select from: No purchases or generation of low carbon electricity, heat, steam or cooling Non-grid connected low carbon heat, steam or cooling, generation owned by company Non-grid connected low carbon electricity generation owned by company, no instruments created Non-grid connected low carbon electricity not owned by company, no instruments created Grid connected low carbon electricity generation owned by company, no instruments created Grid connected low carbon electricity generation owned by company, instruments created and retired by company Tracking instruments, Guarantees of Origin Tracking instruments, RECS (USA) Power Purchase Agreements (PPA) not backed by instruments Supplier specific, backed by instruments Supplier specific, not backed by instruments Other	In this column enter the total figure for each low carbon basis, using no more than 9999999999 without commas and up to two decimal places	Use no more than 2,400 characters in each line.

Use the “Add Row” button to the bottom right of the table to enter multiple rows.

With this question, CDP aims to provide full transparency on accounting of renewable or low carbon electricity practices by companies, while keeping data at a fairly aggregate level in order not to increase the reporting burden. The question documents the reasons/cases that have led companies to account electricity (heat, steam and cooling) as zero or low carbon energy.

The first column “Scope 2 accounting case” captures the most common cases in real practice and that lead companies to account electricity (heat, steam and cooling) at a zero emission rate. The meaning of each of the values is as follows:

- No purchases or generation of low carbon electricity, heat, steam or cooling: If your company doesn't purchase specifically low carbon electricity (or heat, steam and cooling) and just source them from the grid.
- Non-grid connected low carbon heat, steam or cooling, generation owned by company: If you generate your own zero or low carbon heat, steam or cooling, you can report it here.
- Non-grid connected low carbon electricity generation owned by company, no instruments created: If you generate your own renewable electricity, which is not connected to the grid and does not generate any instruments. If the sources are owned by the company, then the energy should not be accounted for Scope 2 purpose (it is not purchased and consumed, but just consumed – see previous guidance on question 11.2), but it can be reported here as it will be of interest to assess to what degree the company is self-sufficient. A common case of this will be what is often designated as “on-site renewables” (although on-site renewable can be grid connected, which would constitute a different case).
- Non-grid connected low carbon electricity not owned by company, no instruments created: This case applies to renewable energy sources which are not grid connected, are not owned by the company and do not generate any instruments. The company will have a special contract with the renewable energy provider and is the only, or one of a limited set of, clients from those sources. This case is fundamentally different from “Tracking instruments, Power Purchase Agreements (PPA) not backed by instruments” as this last one assumes that there is a grid connection and the renewable energy sources do not need to be supplying the company directly.
- Grid connected low carbon electricity generation owned by company, no instruments created: This case applies when the renewable generation sources are owned by the company, the sources are grid connected and there is no generation of certificates associated with that electricity. In this case, the company sells the electricity to the grid but for one reason or another, there are no instruments tracking the electricity. In this case CDP does not recommend that the company accounts for this electricity as low carbon energy consumed. The company might want however to report in further information that it has produced a certain amount of green electricity that it has sold to the grid.
- Grid connected low carbon electricity generation owned by company, instruments created and retired by company: This case applies when the renewable generation sources are owned by the company, the sources are grid connected and there is generation of certificates associated with that electricity. In this case, the company retains and retires the certificates of the electricity that is generated by its own equipment, even though it might sell the electricity to the grid and not consume the electricity itself. This case is fundamentally distinct from “Tracking instruments, RECS (USA)” or “Tracking instruments, guarantees of origin” because in those cases the generation sources are not owned by the company, rather the company merely buys the certificates.
- Tracking instruments, Guarantees of Origin: in this case the company buys instruments through its supplier or other intermediaries, either bundled or as a separate stream from its electricity. The sources are not owned by the company and they generate instruments in accordance with the European Guarantee of Origin system.
- Tracking instruments, RECS (USA): In this case the company buys instruments through its supplier or other intermediaries, as a separate stream from its electricity. The sources are not owned by the company and they generate instruments in accordance with the USA Renewable Energy Certificate system.
- Power Purchase Agreements (PPA) not backed by instruments: In this case the sources are in countries that do not operate a proper certificate tracking system. Purchase agreements are made between producers and consumers, with no issuance whatsoever of instruments. This case is different to the case where a PPA exists and instruments are used – which should be reported under one of the options for tracking instruments.

- Supplier specific, backed by instruments: In this case the user is buying a specific tariff from a supplier which blends its electricity with specific instruments. The company buys the blend as a unique product and does not deal directly with any of the issues related with the certificates.
- Other: Any other instruments not mentioned above and that have been used by the user to account for electricity, heat, steam or cooling at a zero emission factor.

The second column “MWh associated with low carbon electricity” asks you to quantify how much electricity (in MWh) has been used that corresponds to the case selected in column 1.

The third column “Comments” provides you with the ability to provide some accompanying narrative to your disclosure. For example, you can include here any other relevant information about the low carbon electricity you have used in each of the cases, for instance the type of low carbon electricity source (wind, solar, biomass, hydro, geothermal, etc) or any particular information related to eligibility criteria for that source that might be particularly relevant for your company policy or your company.

A worked example can be found in **Box 19** and further examples are given in the technical note “Accounting of Scope 2 emissions”, available at <https://www.cdproject.net/guidance>. You can also find there a discussion on the role of eligibility criteria in the selection of renewable energy tracking instruments and CDP’s recommendation on their use.

Box 19: A worked example of green power accounting:

Question 11.4 provides further transparency to data reported in question 10.1a. A worked example, below, shows how the two questions are linked and should be completed.

In question 10.1a:

Country	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)
United States of America	190.000	350000	35000
Canada	10.000	80000	0
United Kingdom	30.000	70000	0
Spain	10.000	60000	10000
Rest of world	10.000	80000	15000

For the amounts of electricity, heat, steam and cooling identified in column 4 of 10.1a further details are provided in question 11.4, as below:

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comments
Non-grid connected low carbon electricity generation owned by company, no instruments created	10000	During the reporting period our on-site renewable installation in Spain, generated 10 000 MWh which were entirely consumed for our internal production processes.
Tracking instruments, Guarantees of Origin	5000	Our German branch has bought 5 000 MWh of guarantees of origin to cover part of our electricity

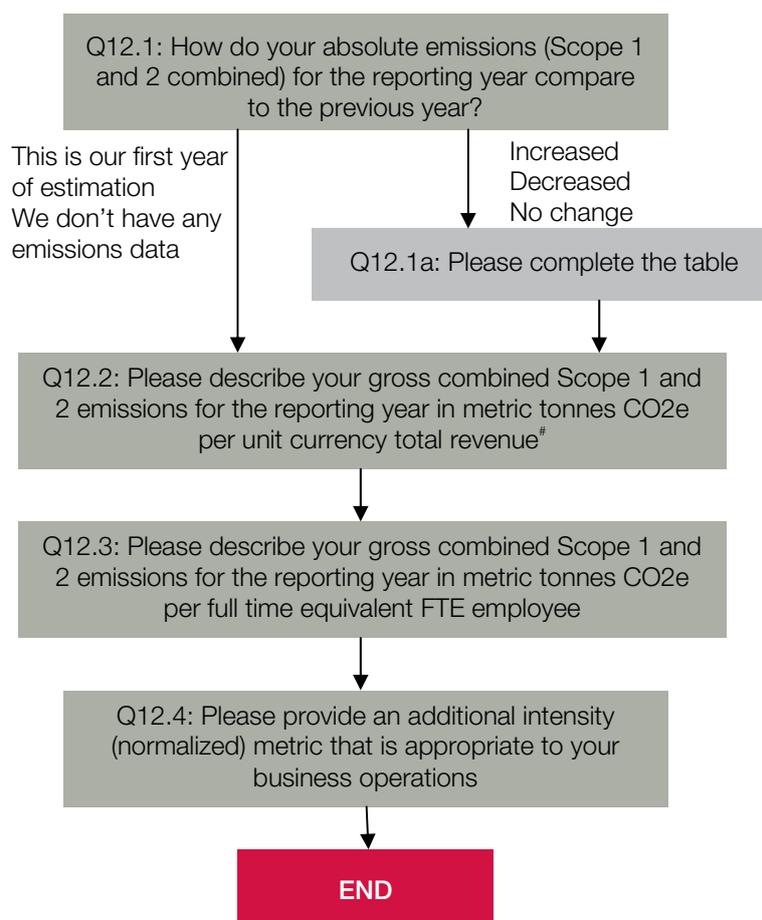
		consumption in Germany. The Guarantees of Origin are from a hydro electric plant in Norway, which has started operations in 2005. All the certificates relate to energy produced during the reporting year.
Power Purchase Agreements (PPA) not backed by instruments	10000	Our offices in India, Chile and Colombia, have established Power Purchasing Agreement with local electricity producers to buy renewable electricity, up to a total amount of 10 000 MWh.
Tracking instruments, RECS (USA)	35000	Our operations in USA have purchased REC's to cover part of the electricity consumption during the period. All REC's are Green-e certified.

- Disclosure Score: Column 1 "Basis for applying a low carbon emission factor" completed. If "no purchases or generation of low carbon electricity, heat, steam or cooling" is filled in, this is sufficient for full points. If any other selection from column 1 is made, column 2 "MWh associated with low carbon electricity, heat, steam or cooling" must also be completed (non-zero numerical figure provided).
- Performance Score: There are no performance points awarded for this question.

Please note that if renewable energy has been accounted for in question 12.1, question 11.4 must have been completed and "no purchases or generation of low carbon electricity, heat, steam or cooling" cannot be selected.

12. Emissions Performance

Question Pathway



Notes: #Question included in the SME questionnaire

General Guidance

Carbon Action

Questions 12.1a, 12.2, 12.3 and 12.4 are used in the analysis for the Carbon Action Initiative. If you have received an action request letter from CDP on behalf of the Carbon Action Signatories, please respond to this question as normal in the online response system. For more details on Carbon Action see <https://www.cdproject.net/en-US/Programmes/Pages/Initiatives-CDP-Carbon-Action.aspx>.

Key Changes from 2012

The table in question 12.1a is no longer dynamic – each row must be completed if appropriate and additional rows cannot be added to the table.

The scoring methodology for questions 12.1a, 12.2, 12.3 and 12.4 has been revised slightly.

Pre-population

None of the questions on this page are eligible for pre-population if you responded last year.

SME version

Question 12.2 on this page is included in the SME questionnaire.

Specific Question Guidance

Q12.1: How do your absolute emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

This question requires you to select the option from the drop down menu that best describes how your combined Scope 1+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 period – 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 8.2, and your Scope 2 emissions are the figure supplied in response to question 8.3. Even if your inventory base year is the previous year, you should still complete this question. If the previous year has been recalculated, recalculation will already take into account divestment, acquisitions, mergers etc. If this is the case, please use the recalculated figure for the calculation and note this in the comment 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

The drop down menu options available are:

- Increased
- Decreased
- No change
- This is our first year of estimation
- We don't have any emissions data

If you select "Increased", "Decreased" or "No change" you will be directed to question 12.1a (below); if you select any other option you will proceed to the next question (question 12.2).

- **Disclosure Score:** Disclosure points awarded for the selection of an option from the drop down menu.
- **Performance Score:** There are no performance points awarded for this question, but performance points for 12.1a are dependent on the selection made at 12.1.



Q12.1a: Please complete the table

This question only appears if you answer “Increased”, “Decreased” or “No change” in response to question 12.1.

Please answer this question by categorizing the changes that have occurred in your emissions, using the table provided in the ORS and reproduced below. You are asked to break down all the different factors that have influenced your overall change in Scope 1+2 emissions, either positively or negatively. You are asked to break down all these different factors, describe them each in a separate row, and provide the value for the change in overall emissions that is attributed to each of the factors.

Please note that even if companies have experienced no change overall or an increase in absolute emissions for Scopes 1 and 2, CDP still wants companies to disclose reduction activities. In the unlikely event that companies have genuinely not experienced any change in any of the categories, they should complete the row “Other”, specifying “No change” in the text box provided and then enter 0 in column 2 and either of the options from column 3 (to ensure that they are not penalized on disclosure scoring – see below).

Emission 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 one row in 12.1a. However, different reasons for change should be completed in separate rows and not aggregated in response to this question.

Guidance on completing each of the rows and columns is provided below the table.

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities			
Divestment			
Acquisitions			
Mergers			
Change in output			
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

- **Reason:** This column is fixed. Further details on each of the options is provided below:
 - Emissions reduction activities
 - This refers to changes in emissions that have occurred as a result of proactive emission reduction initiatives or activities, such as those detailed in response to question 3.3. Note that due to the change in accounting practices around Scope 2 and low carbon energy, companies may see their Scope 2 emissions decrease.

Where this is due to the change in accounting only this should be reported under “Change in methodology” (see below). Where companies have increased the amount of low carbon energy purchased on a year on year basis they can report that here.

- o Divestment
 - This refers to changes that occur as a result of divestment of certain aspects of the businesses.
- o Acquisitions
 - This refers to changes that occur as a result of acquiring another company/subsidiary/facility.
- o Mergers
 - This refers to changes that occur as a result of business mergers.
- o Change in output
 - 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, declines in sales due to the global recession, or release of a new product.
- o Change in methodology
 - This refers to changes that occur due to alterations in the way that the inventory is calculated, for example 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 that here.
- o Change in boundary
 - 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.
- o Change in physical operating conditions
 - 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 hydro electricity because of increased rainfall.
- o Unidentified
 - Complete this row if you are not able to identify the reason for the change in emissions from year to year.
- o Other
 - 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 comment column.

- **Emissions value (percentage)**
 - 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 two decimal places. There is no need to enter the % symbol. This value should be calculated as follows:

$$\left[\frac{\text{Change in Scope 1+2 emissions attributed to the reason described in column 1}}{\text{Previous year Scope 1+2 emissions}} \right] \times 100$$

See worked example in Box 20 for additional guidance.

- **Direction of change:** Select from
 - Increase
 - Decrease
- **Comment:** Use this text box to provide any additional explanation that is relevant to capture the full complexity of the emissions changes, using no more than 2,400 characters.

Electric Utility Companies

Variations in emissions may be attributable to changes in capacity (that translated into changes in output), plant outages (which can also translate into change sin output) and weather events (changes in physical operating conditions). If so, this should be included in your answer to 12.1a. 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.

- **Disclosure Score:** To qualify for disclosure points, columns 1 to 3 must be completed for one or more rows.
- **Performance Score:** Performance points apply where columns 1 to 3 have been completed, the reason selected is “Emissions reduction activities” and the direction of change is “Decrease”. Points awarded are scaled according to the size of emissions reductions made. If you are planning to report renewable energy purchase, please review the guidance on “emissions reduction activities”. If purchasing renewable energy has been accounted for as an emissions reduction activity, question 11.4 must have been completed to score any disclosure or performance points for that row.

Box 20: Worked examples of questions 12.1 and 12.1a

Example 1: The total emissions (Scope 1+2) of company X for this reporting year are 208 metric tonnes of CO₂-e. The total emissions for the previous reporting year were 200 metric tonnes of CO₂-e.

This means that the total change in emissions is 8 metric tonnes of CO₂e, which is equal to a 4% increase.
 $(208-200/200)*100= 4\%$

The change from 200 to 208 metric tonnes is attributed to an increase in 12 metric tonnes of CO₂e emissions due to increased production. However due to emission reduction activities, an estimated reduction of 4 metric tonnes of CO₂e have been achieved.

The value for each individual factor can be calculated using the following formula:

$(\text{Emissions change due to any single factor}/\text{previous year's emissions}) * 100 = \text{percentage change in emissions due to that factor.}$

- The percentage change in emissions due to increased production:
 $(12/200)*100= 6\%$
 This represents a 6% increase in emissions due to increased production.
- The percentage change in emissions due to emission 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 12.1 and 12.1a:

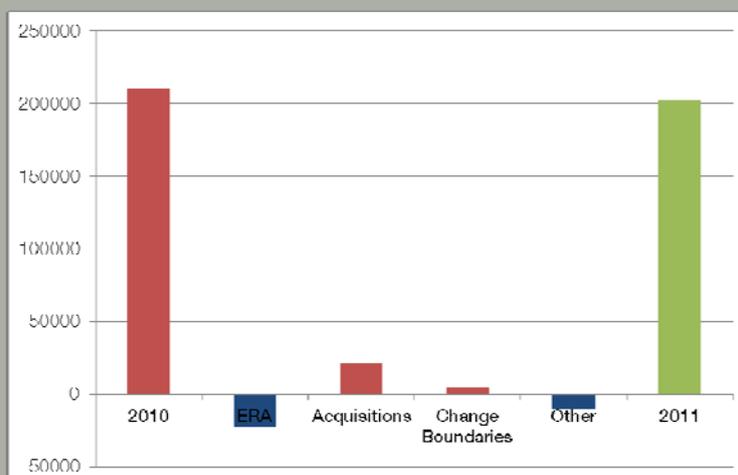
12.1 How do your absolute emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

12.1a please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Change in output	6	Increase	If no measures had been introduced, increased demand leading to increase output would have generated an extra 6% more of emissions.
Emissions reduction activities	2	Decrease	Due to emission reduction activities implemented during the year, despite an increase in production, emissions have not grown as high as could be expected. The estimated impact of emission reduction activities is of 4 metric tonnes of CO ₂ e, which represents 2% of the emissions reported last year.

Example 2: Companies may be used to seeing this information presented graphically where reductions appear below the horizontal axis. A further worked example shows how this data can be used to complete question 12.1a.



	2010 Total	What happened during reporting year				2011 Total
		ERA	Acquisitions	Change Boundaries	Other	
% change		-0.11	0.10	0.02	-0.0501	-0.04
tCO ₂ e	210573	-23163	21057.3	4211.5	-10542.8	202136

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	11	Decrease	Gross Scope 1+2 emissions decreased by 11%, due to energy efficiency activities undertaken, mainly for our electricity consumption. We have achieved 14% in New Zealand, 9% in Australia and 8% reductions in USA. This implied energy efficiency measurements in all our main buildings, which have obtained maximum GreenStar certification; a tri-generation plant which increased the efficiency of our largest data centre; and improved metering and monitoring of energy consumption. All have led to an overall reduction of electricity consumption across our offices. Changes due to variation of emission factors associated with the grid mix have also contributed to a decrease of emissions, although that is not considered here.
Acquisitions	10	Increase	In the United States, the acquisition of a major business competitor resulted in circa 36% increase of the emissions in the USA and 10% of our overall emissions. This is mainly the result of additional buildings being included as new sources of GHG emissions.

Reason	Emissions value (percentage)	Direction of change	Comment
Change in boundary	2	Increase	Emissions increased by 2% due to the inclusion of additional inventory items for our minority positions in Asia. As an example the Hong Kong office reported for the first time the emissions due to vehicle fleet and business travel.
Other	5	Decrease	Scope 1 emissions for our USA operations decreased 25% compared to previous year inventory. This is equivalent to a decrease of 3100 tCO ₂ e. This decrease is due to the new gas powered tri-generation plant, substituting previous fuel oil boiler.

Q12.2: Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO₂e per unit currency total revenue

Please enter your response to this question in the table provided in the ORS and reproduced below. Further guidance on completing each of the columns can be found beneath the table. A worked example demonstrating how to calculate intensity metrics is included in **Box 21** at the end of this section. 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 6.

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
	metric tonnes CO ₂ e	unit total revenue			

- Intensity figure
 - Use this column to enter the intensity figure, calculated by your total Scope 1 and 2 emissions (see the next bullet point) divided by your revenue, making sure that the revenue figure used applies to the same organizational boundary as your emissions data. Up to 10 decimal places are allowed for this column.
- Metric numerator
 - This column is fixed and specifies that the emissions should be in metric tonnes CO₂e, derived from your gross global Scope 1 emissions figure (question 8.2) plus your gross global Scope 2 emissions figure (question 8.3).
- Metric denominator
 - This column is fixed and demonstrates that the denominator units are “unit total revenue”; i.e. per single unit (1) of the currency specified in question 0.4 on the Introduction page of the ORS.
 - Revenue is sometimes also described as turnover or gross sales; for the purposes of this information request these terms are considered synonymous. Revenue is defined as sales, net of taxes. Sales refer to the money received by your company for goods and services



provided, after tax but before subtracting costs. If you are a bank, you might refer to this figure as the total operating income.

- % change from previous year
 - Enter a value of no more than 999 and up to two decimal places to describe the change in your emissions intensity figure. There is no need to use negative figures to identify a reduction as this will be covered in the next column. If you have experienced no change, please enter 0 (zero) in this column.
- Direction of change from previous year
 - Select from one of the following options:
 - Increase
 - Decrease
 - No change
 - N/A – select this option if you do not have sufficient data to calculate the change from the previous year
- Reason for change
 - Use this column to describe why your emissions intensity has changed. Companies should explain the primary reasons behind the change and the degree to which different factors have influenced the figures. The degree should be expressed as a percentage. This is a free text field and you can enter up to 2,400 characters.
- **Disclosure Score:** Maximum disclosure points are awarded for providing an intensity figure and explaining the percentage and direction of change and the reasons behind the change. However, some points are available for supplying the intensity metric even if the direction of travel and the reasons behind it cannot be given.
- **Performance Score:** Performance points are awarded for this question where columns 1, 4, 5 and 6 are completed, a reduction in emissions intensity is demonstrated and the entry in the explanation column confirms that this is due partly or completely to emissions reduction activities.

Note on the scoring of questions 12.2, 12.3 and 12.4

Information is requested on three emission intensity metrics. All three will be scored, but only the best two scores will be recorded with the third being logged in all cases as 0/0 so there is no impact on a company's overall score. This scoring approach recognizes that companies may not be able to provide all three metrics, however if all three are available, companies can report all three.

Q12.3: Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO₂e per full time equivalent (FTE) employee

Please enter your response to this question in the table provided in the ORS and reproduced below. Further guidance on completing each of the columns can be found beneath the table. A worked example demonstrating how to calculate intensity metrics is included in Box 21 at the end of this section. If you did not disclose to CDP last year, or did not use this data point, please use last year's inventory and company 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 6.

In the context of this question, FTE should refer to all work being done within your chosen organizational boundary, regardless of whether the employees carrying on the work are employed directly by your company. The organizational boundary applied in this question should be the same one that you apply for emissions consolidation.



Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
	metric tonnes CO2e	FTE employee			

- Intensity figure
 - Use this column to enter the intensity figure, calculated by your total Scope 1 and Scope 2 emissions, divided by your total number of FTE employees, making sure that the employee figure used applies to the same organizational boundary and your emissions data. Up to 10 decimal places are allowed for this column.
 - Metric numerator
 - See guidance for question 12.2.
 - Metric denominator
 - This column is fixed and demonstrates that the denominator units are “FTE employee”. FTE (or full time equivalent) is a way to compare staff numbers across companies with different working arrangements.
 - % change from previous year
 - See guidance for question 12.2.
 - Direction of change from previous year
 - See guidance for question 12.2.
 - Reason for change
 - See guidance for question 12.2.
-
- **Disclosure Score:** Maximum disclosure points are awarded for providing an intensity figure and explaining the percentage and direction of change and the reasons behind the change. However, some points are available for supplying the intensity metric even if the direction of travel and the reasons behind it cannot be given.
 - **Performance Score:** Performance points are awarded for this question where columns 1, 4, 5 and 6 are completed, a reduction in emissions intensity is demonstrated and the entry in the explanation column confirms that this is due partly or completely to emissions reduction activities.

Also see the notes on scoring questions 12.2, 12.3 and 12.4 at the end of the guidance for question 12.2.

Q12.4: Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Questions 12.2 and 12.3 requested data on the most common and easy to calculate emissions intensity, or normalized, metrics. However these are not necessarily the most appropriate to individual businesses and therefore question 12.4 gives you the opportunity to report an additional intensity or normalized metric that is most appropriate to your own operations.

Please enter your response to this question in the table provided in the ORS and reproduced overleaf. Further guidance on completing each of the columns can be found beneath the table. A worked example demonstrating how to calculate intensity metrics is included in Box 21 at the end of this section. If you did not disclose to CDP last year, or did not use this data point, please use last year’s inventory and other relevant company 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 6.

Companies in the ICT sector

Companies responding to the ICT sector module can provide activity based intensity metrics for their significant business activities in the sector module instead of providing an additional organization wide intensity metric here. If this is the case, companies should redirect data users by indicating the relevant sector module question numbers in column 6 of the table.

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
	metric tonnes CO2e				

- Intensity figure
 - Use this column to enter the intensity figure, calculated by your total Scope 1 and 2 emissions, divided by your chosen denominator, making sure that the denominator chosen has the same organizational boundary as the emissions data. Up to 10 decimal places are allowed for this column.
- Metric numerator
 - See guidance for question 12.2.
- Metric denominator
 - Select one of the following options from the drop down menu:
 - unit hour worked
 - metric tonne of product
 - liter of product
 - unit of production
 - unit of service provided
 - square foot
 - square meter
 - kilometer
 - passenger kilometer
 - megawatt hour (MWh)
 - barrel of oil equivalent (BOE)
 - vehicle produced
 - tonne of aluminum
 - tonne of ore processed
 - ounce of gold
 - ounce of platinum
 - tonne of aggregate
 - tonne of steel
 - billion (currency) funds under management
 - Other, please specify
 - If you select “Other, please specify” you should enter your preferred metric denominator in the text box provided.
- % change from previous year
 - See guidance for question 12.2

- Direction of change from previous year
 - See guidance for question 12.2
- Reason for change
 - See guidance for question 12.2.

- **Disclosure Score:** Maximum disclosure points are awarded for providing an intensity figure and explaining the percentage and direction of change and the reasons behind the change. However, some points are available for supplying the intensity metric even if the direction of travel and the reasons behind it cannot be given. This question is eligible for slightly fewer points than 12.2 and 12.3, except where a company is referring to the ICT sector module. In this case, it is eligible for the same number of points.
- **Performance Score:** Performance points are awarded for this question where columns 1, 3, 4, 5 and 6 are completed, a reduction in emissions intensity is demonstrated and the entry in the explanation column confirms that this is due partly or completely to emissions reduction activities. This question is eligible for slightly fewer points than 12.2 and 12.3, except where a company is referring to the ICT sector module. In this case, it is eligible for the same number of points.

Also see the notes on scoring questions 12.2, 12.3 and 12.4 at the end of the guidance for question 12.2.

Box 21: Measuring CO₂e intensity

Intensity measures describe an organization's CO₂e emissions in the context of another business metric. In this way, the emissions are normalized to account for growth etc.

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 tonnes of aggregate produced.

$$\text{Intensity} = \frac{\text{Emissions (metric tonnes CO}_2\text{e) (Numerator)}}{\text{Business metric (e.g. revenue) (Denominator)}}$$

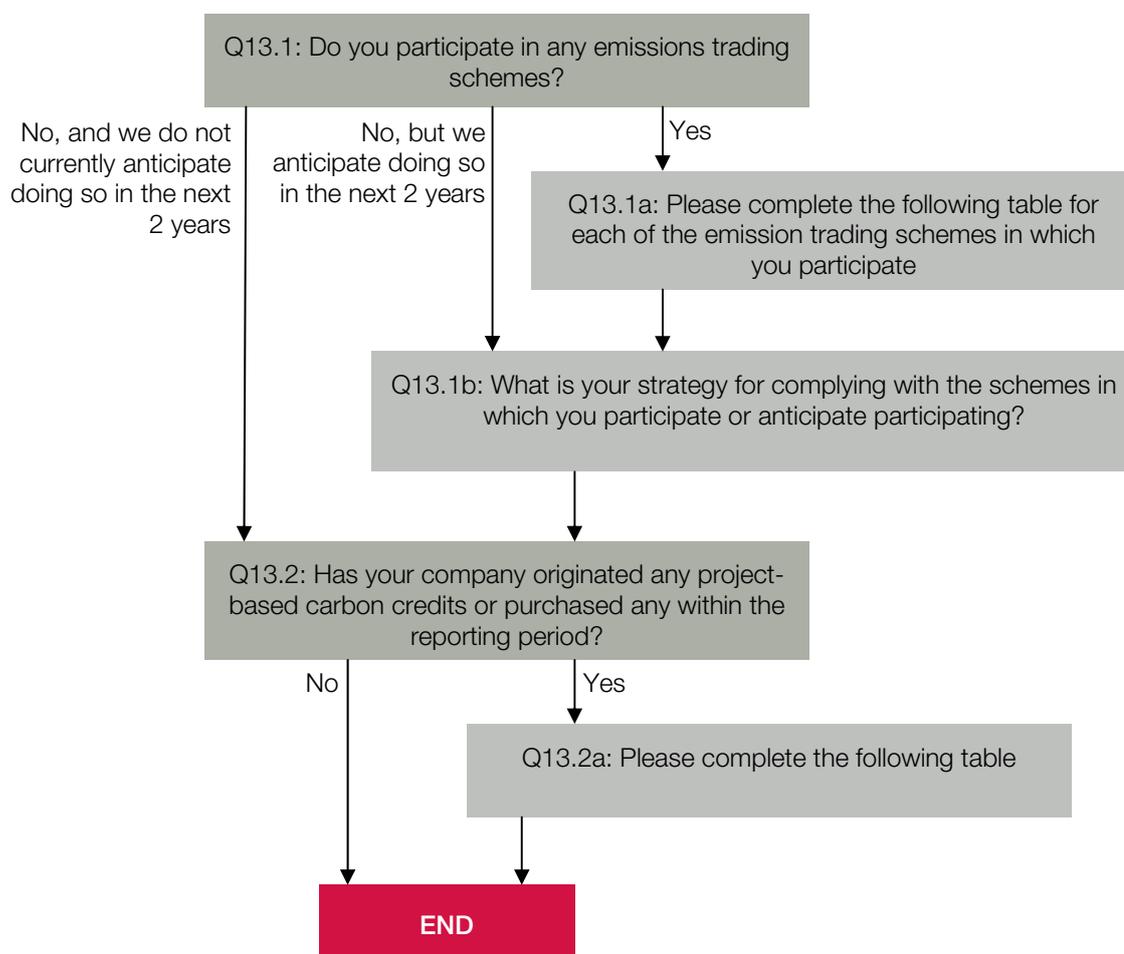
Important points to remember when calculating intensity are:

- **Numerator units:** the intensity metrics requested in questions 12.2-12.4 should have emissions in metric tonnes 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 8.2 and 8.3
- **Denominator units:** When calculating your intensity you should ensure that the units of your data match those specified in the intensity metric. For example, question 12.2 requests for intensity in metric tonnes CO₂e per unit currency revenue. This means that your revenue figure (the denominator) should be in the currency you specified in the Introduction and in single units, i.e. if your revenue is 5 Million US\$ your unit revenue is 5000000. Another example would be metric tonnes 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 8.4).

13. Emissions Trading

Question Pathway



General Guidance

As regulation passes into law, companies will increasingly be brought into mandatory emissions trading schemes such as the EU ETS, Tokyo Cap-and-Trade and the Regional Greenhouse Gas Initiative (RGGI). Those wishing to reduce their environmental impact may also participate in a voluntary emissions trading scheme such as the Japan Voluntary Emissions Trading Scheme. Schemes like this are generally voluntary to join and reductions/trading become requirements in order to remain compliant. One of the ways companies remain compliant is through the origination and/or purchase of carbon credits.

Emissions trading scheme allowance purchases are treated separately to other carbon credits as companies participating in a mandatory scheme face different levels of risk to companies that are voluntarily committing to offset emissions. Therefore, we believe that it is appropriate to differentiate between allowances allocated or used for compliance within a mandatory scheme and generation or use of credits within the voluntary market.

Please note that some emission trading schemes may apply solely to the operators of facilities, but the financial position of the facility owner will also be affected indirectly by the operation of the scheme. Thus this question is applicable to both owners and operators of facilities covered by trading schemes. Even if your company does not wholly own facilities, please give the total number of emissions and allowances.

Key Changes from 2012

There are no question changes on this page and pre-population is not enabled.

There are no significant changes to the scoring methodology for this section.

Pre-population

None of the questions on this page are eligible for pre-population if you responded last year.

SME version

None of the questions on this page are included in the SME questionnaire.

Specific Question Guidance

Q13.1: Do you participate in any emissions trading schemes?

Please respond to this question by selecting the most appropriate option from the drop down menu in the ORS. The options provided are:

- Yes
- No, but we anticipate doing so in the next 2 years
- No, and we do not currently anticipate doing so in the next 2 years

Please note that to “participate” means that you are undertaking (or intend to undertake) activities for which you will be required to purchase or be allocated credits.

If you select “Yes” you will be directed to questions 13.1a and 13.1b; if you select “No, but we anticipate doing so in the next 2 years” you will be directed to question 13.1b; and, if you select “No, and we do not currently anticipate doing so in the next 2 years” you can proceed to the next question (question 13.2).

- **Disclosure Score:** Disclosure points are awarded for the selection of a drop down menu option.
- **Performance Score:** There are no performance points awarded for this question.

Q13.1a: Please complete the following table for each of the emission trading schemes in which you participate

This question only appears if you select “Yes” in response to question 13.1.

Please complete the question in the table provided in the ORS and reproduced below. As noted above, although some emission trading schemes may apply solely to the operators of facilities, the financial position of facility owners is also affected indirectly by the operation of the scheme. This question therefore applies to both owners and operators of facilities covered by trading schemes. Even if your company does not wholly own facilities, please give the total number of emissions and allowances.

If this is the first time you are responding to CDP you are requested to provide 3 years of historical data if applicable by adding rows to the table. Companies are also requested to provide forward looking data for 2013. Further guidance on completing each of the columns is provided beneath the table (overleaf).

Companies in the UK should note that the Carbon Reduction Commitment (CRC) although originally proposed as a cap and trade scheme is not operating in this way and is a reporting scheme only.



Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

You can enter multiple rows using the “Add Row” button at the bottom right of the table, to enter data for individual schemes and/or individual years.

- Scheme name
 - Select from one of the following options
 - Alberta Emissions Trading Regulation
 - California's Greenhouse Gas Cap and Trade Program
 - European Union ETS
 - Japan Voluntary ETS
 - New Zealand ETS
 - Regional Greenhouse Gas Initiative
 - Tokyo Cap-and-Trade
 - Other, please specify
 - Period for which data is supplied
 - Enter the start date and finish date that applies to the data in the row, using the text box by entering dates in the format DD/MM/YYYY or by using the calendar.
 - Allowances allocated
 - Enter the number of allowances allocated for free, entering whole numbers only.
 - Allowances purchased
 - Enter the number of allowances purchased, entering whole numbers only.
 - Verified emissions in metric tonnes CO2e
 - Enter the amount of emissions that have been verified under the scheme identified, in metric tonnes CO2e. This field accepts numbers only, up to 9999999999 and up to two decimals places; commas are not permitted.
 - Details of ownership
 - Select the option that best describes your ownership arrangements for the facilities subject to the scheme identified from the following:
 - Facilities we own and operate
 - Facilities we own but do not operate
 - Facilities we operate but do not own
 - Other, please specify
-
- Disclosure Score: Disclosure points are awarded for this question with maximum points available where all columns have been completed.
 - Performance Score: There are no performance points awarded for this question.

Box 22: Emissions Trading Schemes (ETS)

European Union (EU) Emissions Trading System

The EU ETS is currently the largest and most well developed ETS in place. It covers medium and large emitters and is expanding with regard to industries included, with aviation and aluminum production joining in 2012 and 2013 respectively. Allowances are allocated to companies on the basis of National Allocation Plans determined by individual countries. However from 2013 allowances will be centrally coordinated by the European Commission. Companies that emit more than their allocated allowances need to purchase allowances from companies that wish to sell or purchase offset credits from the Kyoto Protocol's flexible mechanisms.

As directed above companies should use question 13.1a to report the allowances that they have been allocated and those that they have needed to purchase in the reporting year.

Alberta Emissions Trading Scheme

Alberta's emission trading scheme is slightly different to others such as the EU ETS as it is based on emissions intensity targets. Companies in the scheme are given a target for their emissions (based on emissions intensity) each year. If they do not reach this target they have to purchase project based credits, allowances from over-achieving participants or pay into a fund.

In the context of the CDP response, the target emissions must be converted into absolute emissions, and can then be reported as the "allowances allocated". The emissions that are accounted for through project based credits, allowances from over-achievers or by paying into the fund must again be converted into absolute emissions and can then be reported as "allowances purchased".

Further information on current and proposed emissions trading schemes can be found in the following paper:

- [International Energy Agency \(IEA\), Reviewing Existing and Proposed Emissions Trading Systems \(November 2010\)](#)

Q13.1b: What is your strategy for complying with the schemes in which you participate or anticipate participating?

This question only appears if you select "Yes" or "No, but we anticipate doing so in the next 2 years" in response to question 13.1.

Please give your answer in the text box provided in the ORS, using no more than 5,000 characters.

Some of the options for compliance include efficiency upgrades, purchase of allowances and the purchase of carbon credits. Depending on how long your company has participated in trading schemes, efficiency upgrades may not provide the amount of reductions necessary to comply with regulations. If that is the case your company may consider including this information. You are also encouraged to detail your company's long-term compliance strategy.

You may also want to identify whether all of the business must be compliant or whether trading schemes only apply to certain portions of the business.

- **Disclosure Score:** Where a strategy has been provided, disclosure points are available.



- Performance Score: There are no performance points awarded for this question.

Q13.2: Has your company originated any project-based carbon credits or purchased any within the reporting period?

Please respond to this question by selecting “Yes” or “No” from the drop down menu provided in the ORS. If you select “Yes” you will be directed to question 13.2a; if you select “No” you can proceed to the next page of the ORS.

This question only applies to companies that have originated the carbon credits or who have purchased them for the purposes of compliance or as voluntary carbon offsets. It is not intended to capture trading desk activity and therefore if your only reason for purchasing credits is to re-sell them, you should answer “No” to this question.

- Disclosure Score: Disclosure points are awarded for selection of a drop down menu option.
- Performance Score: There are no performance points awarded for this question.

Q13.2a: Please complete the table

This question only appears if you select “Yes” in response to question 13.2.

Credits can be originated by a variety of projects and for several markets, which configures several project-based carbon credit types. Examples of project-based carbon credits include:

- Certified Emission Reductions (CERs) generated by activities under the Clean Development Mechanism (CDM);
- Emission Reduction Units (ERUs) generated by activities under the Joint Implementation mechanism; and
- Voluntary Emission Reductions (VERs) generated by activities that reduce emissions, but do not result in the creation of compliance-grade carbon units.

Please complete your response in the table provided in the ORS and reproduced below. Further guidance on completing each of the columns is provided beneath the table.

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits retired	Purpose, e.g. compliance

You can enter multiple rows by selecting the “Add Row” button to the bottom right.

- Credit origination or credit purchase
 - If you are the company to which the credits are originally issued (e.g. you are one of the participating entities of a Clean Development Mechanism (CDM) project and you are entitled to a share of the credits issued by the CDM registry) then you should select credit

origination. Otherwise, if you have bought the credits from another company, you should select credit purchase.

- Project type
 - Select from one of the following³:
 - Agriculture
 - Biomass energy
 - Cement
 - CO2 usage
 - Coal mine/bed CH4
 - Energy distribution
 - Energy efficiency: households
 - Energy efficiency: industry
 - Energy efficiency: own generation
 - Energy efficiency: service
 - Energy efficiency: supply side
 - Forests
 - Fossil fuel switch
 - Fugitive
 - Geothermal
 - HFCs
 - Hydro
 - Landfill gas
 - Methane avoidance
 - N2O
 - PFCs and SF6
 - Solar
 - Tidal
 - Transport
 - Wind
 - Other, please specify
- Project identification
 - Please enter the project name
- Verified to which standard
 - Select from one of the following options; if the appropriate standard is not in the list, please select “Other” and enter the name of the standard in the text box provided.
 - CDM (Clean Development Mechanism)
 - JI (Joint Implementation)
 - Gold Standard
 - VCS (Voluntary Carbon Standard)
 - VER+ (TÜV SÜD standard)
 - CAR (The Climate Action Reserve)
 - CCBS (developed by the Climate, Community and Biodiversity Alliance, CCBA)
 - Not yet verified
 - Other, please specify
- Number of credits (metric tonnes CO2e)

³ List sourced from <http://www.cdmpipeline.org/cdm-projects-type.htm#1>

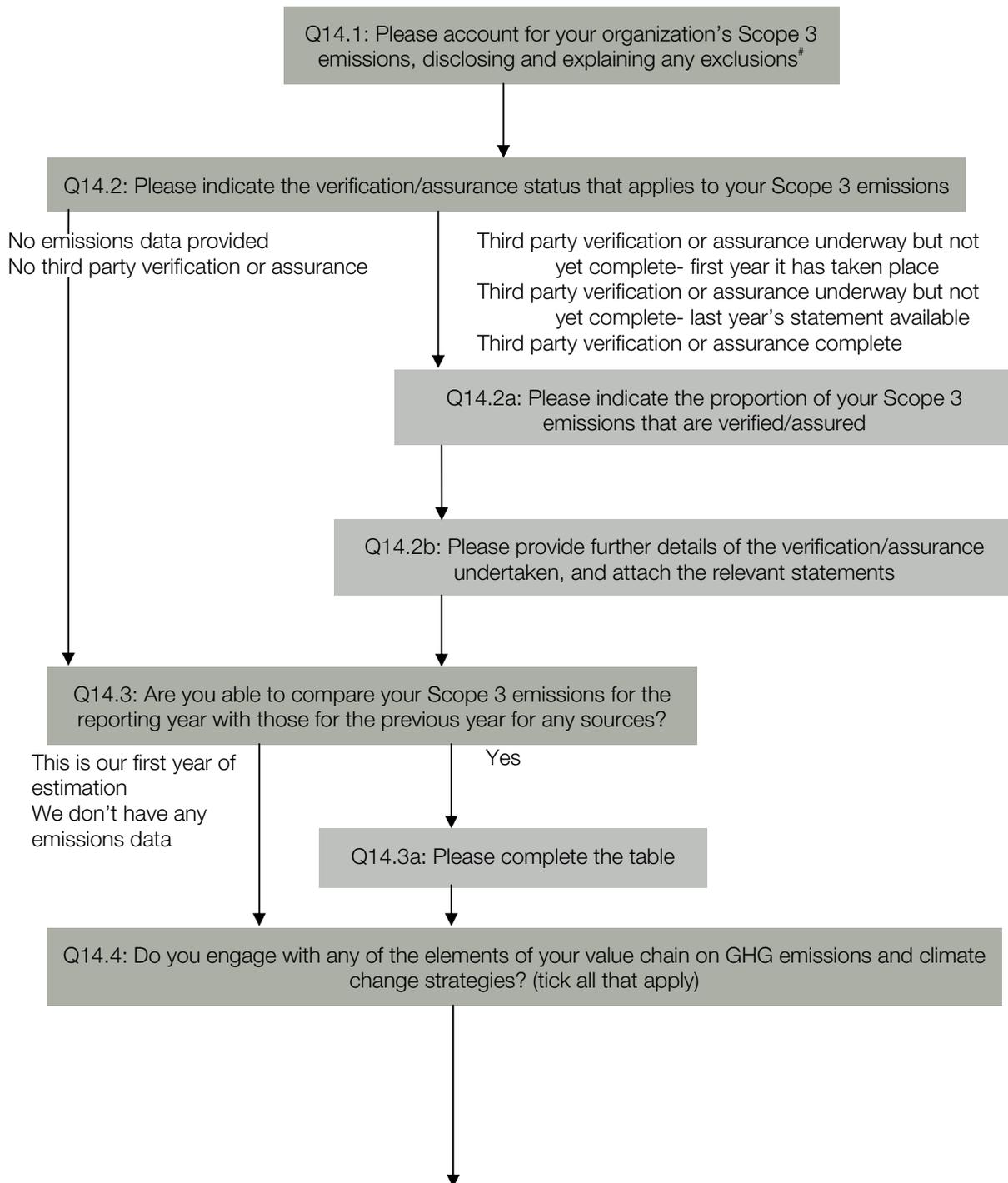


- o Enter the total number of annual credits that you have originated or purchased in metric tonnes CO₂e based on the figures supplied in the agreements. The number of credits reported should be the credits that were originated for the reporting period identified on the Introduction page of the ORS, irrespective of whether you have already sold them and of whether they have been retired or not. Numbers up to 9999999999 are allowed (without commas) and up to 2 decimal places.
- Number of credits (metric tonnes CO₂e): Risk adjusted volume
 - o Credits are sold at different stages in the life cycle of a project and therefore the volume of credits predicted will be adjusted, according to different criteria, such as sector of project, stage of project, etc. Use this column to enter the number of annual credits that you are originating (in the pipeline) or when you have purchased projects/credits that are still in the pipeline and provide a risk adjusted figure (in metric tonnes CO₂e) according to the level of risk. Numbers up to 9999999999 are allowed (without commas) and up to 2 decimal places.
- Credits retired
 - o “Retired” means that the certificate cannot be used again. Select from:
 - Yes
 - No
 - Not relevant
- Purpose, e.g. compliance
 - o Select from:
 - Compliance
 - Voluntary Offsetting
 - Not applicable
 - Other, please specify

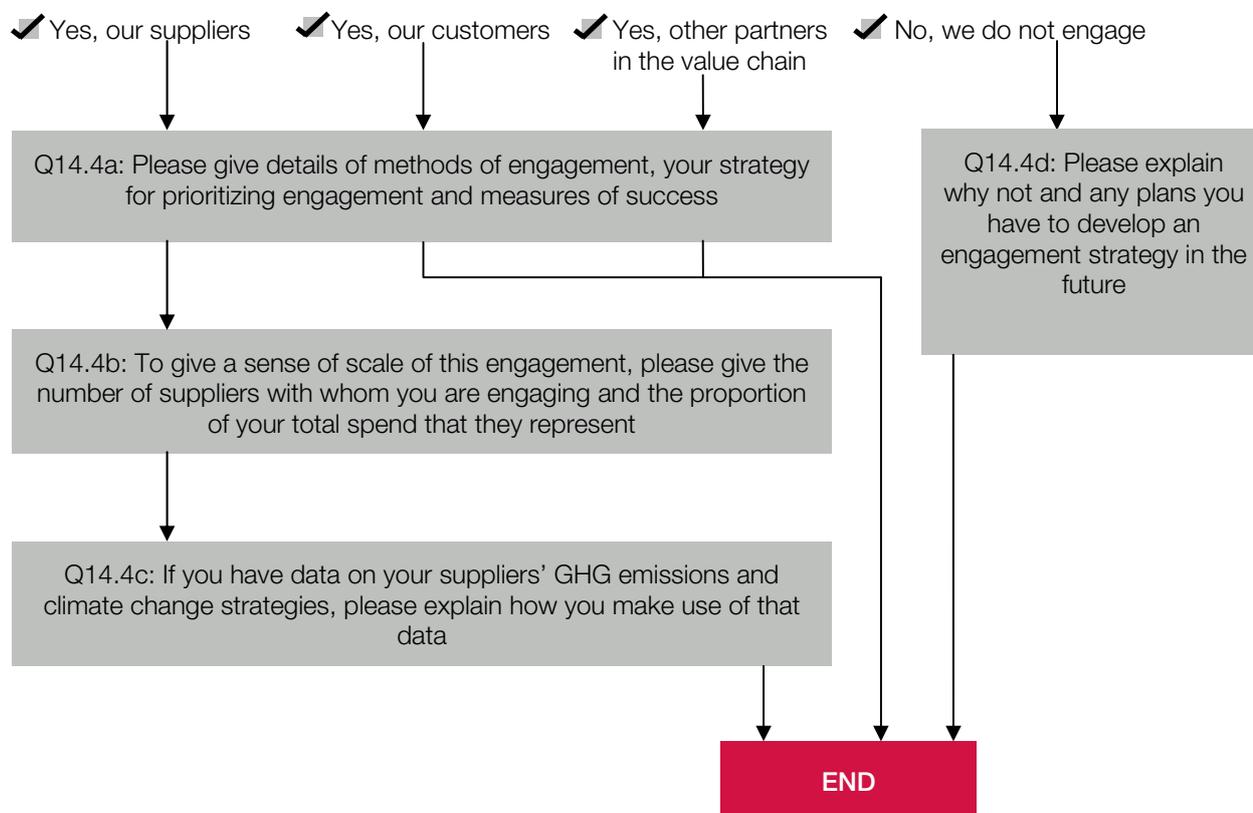
- Disclosure Score: Disclosure points are awarded for this question. Maximum points are awarded when at least seven of the eight columns are completed.
- Performance Score: Points will only be awarded here if company has reported a carbon reduction meeting a threshold (to be determined) at 12.1a and credits have been retired as a voluntary offsetting measure.

14. Scope 3 Emissions

Question Pathway



CONTINUED OVERLEAF



Notes: #Question included in the SME questionnaire

General Guidance

Scope 3, like Scope 2, is a category of indirect emissions that arise as a consequence of an organization's activities, but from GHG sources that are owned or controlled by others. Scope 2 covers emissions that an organization indirectly causes to be emitted through its import – usually by purchase – of electricity, heat, cooling and steam for its own consumption. Scope 3 covers all other indirect emissions from sources that are not owned or controlled by a company but which occur as a result of its activities.

The World Resources Institute and World Business Council for Sustainable Development have produced a Corporate Value Chain (Scope 3) Accounting and Reporting Standard (hereafter referred to as the GHG Protocol Scope 3 standard) as a supplement to the GHG Protocol Corporate Accounting and Reporting Standard. This document provides detailed guidance on accounting for Scope 3 emissions. See www.ghgprotocol.org for further details.

Key Changes from 2012

The changes to this section of the questionnaire in 2013 have been introduced to increase the level of alignment with the GHG Protocol Scope 3 standard referenced above. These changes are:

- Question 14.1 (CDP 2012 15.1) has been amended;

- Question 14.4 is new;
- Due to the number of questionnaire changes in this section, the scoring methodology has been completely revised for question 14.1, and disclosure scoring has been introduced for questions 14.4, 14.4a and 14.4d.

Pre-population

There are no questions available for pre-population on this page.

SME version

Question 14.1 on this page is included in the SME questionnaire.

Specific Question Guidance

Q14.1: Please account for your organization’s Scope 3 emissions, disclosing and explaining any exclusions

Please complete your response in the table provided in the ORS and reproduced below.

According to the new Scope 3 standard (Corporate Value Chain [Scope 3] Accounting and Reporting Standard): “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 14.3a on emissions reduction activities. In this table you may refer to the reason for a change in emissions for each Scope 3 category. Please reference the name of the relevant Scope 3 category in the “comments” column of the table.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services					
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					
Investments					
Downstream transportation and distribution					

Processing of sold products					
Use of sold products					
End of life treatment of sold products					
Downstream leased assets					
Franchises					
Other (upstream)					
Other (downstream)					

You should complete every row of the table (with the exception of the last two rows (Other (upstream) and Other (downstream) which are optional) but not necessarily all columns. Instructions on which columns to complete is provided in **Box 23** and further guidance on how to complete the relevant columns is provided in the bullet points below.

Box 23: Summary of which columns to complete

The columns that you need to complete in response to question 14.1 will depend on your selection made in the Evaluation status column and are summarized below.

Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
Relevant, calculated	Yes	Yes	Optional	Optional
Relevant, not yet calculated	No	No	No	Optional
Not relevant, calculated	Yes	Yes	Optional	Optional
Not relevant, explanation provided	No	No	No	Yes
Not evaluated	No	No	No	Optional

- Sources of Scope 3 emissions: This column is already completed in the ORS and all sources will appear. 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. Companies should refer to the standard for information on the sources that each category comprises and additional information on how to calculate these emissions. The document can be found [here](#).

- Evaluation status: This column should be completed for all Scope 3 sources, with the exception of Other (upstream) and Other (downstream) – these latter two categories should only be used if companies have a source of Scope 3 emissions that is not provided above. The evaluation status includes two components: whether a Scope 3 source is relevant to your business and what you have done to investigate that source. Relevance should be determined with reference to the GHG Protocol Scope 3 standard – see **Box 24** for the relevance criteria. Select from:
 - Relevant, calculated: Select this option if the Scope 3 category is relevant and you have calculated emissions from at least part of this source.
 - Relevant, not yet calculated: select this option if you are aware that the Scope 3 source 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 source 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 source of Scope 3 emissions 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 source and therefore do not know whether it is relevant or not relevant for your business.
- Metric tonnes CO₂e: Complete this column for all sources that you have identified as “Relevant – calculated” or “Not relevant – calculated” in the Evaluation status column. Enter the emissions appropriate to each source identified in metric tonnes CO₂e, entering numbers only up to 9999999999 without commas and up to two decimal places. Negative numbers are not allowed as reporting needs to be gross, not net figures. Emission figures should be for the reporting year only.
- Methodology: Complete this column for all sources that you have identified as “Relevant, calculated” or “Not relevant, calculated” in the Evaluation status column. Your response should include (i) a description of the types and sources of data used to calculate emissions. This includes activity data, emission factors and GWP values used to calculate emissions; (ii) a description of the data quality of reported emissions and (iii) a description of the methodologies, assumptions and allocation methods used to calculate emissions. Please use no more than 2400 characters to complete this response.
- Percentage of emissions calculated using primary data: This column is optional for all sources that you have identified as “Relevant, calculated” or “Not relevant, calculated” in the Evaluation status column. Primary data is that gained directly from suppliers or other partners in the value chain. Enter the percentage value in this column; there is no need to enter the percentage symbol. Values up to 100 are accepted and up to 2 decimal places.
- Explanation: Complete this column for all sources that you have identified as “Not relevant, explanation provided” in the Evaluation status column. You should 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 other rows in the table you can also do that in this column. Use no more than 2400 characters in your response.

For Electric Utility Sector Companies

Electric utilities are directed to the standard referenced above for guidance on deciding which emissions should be reported under Scope 3. In particular, see the section on "Fuel- and Energy-Related Emissions Not Included in Scope 1 or 2" starting on page 41.

For Auto and Auto Component Manufacturers

Auto manufacturers may wish to refer to information on methodology given in answer to the auto module question AU2.2 in their answer to 14.1. This information will be scored provided that the data-users are directed from the methodology column of 14.1 to AU2.2.

Box 24: Relevance criteria for Scope 3 emissions sources: extract from the Corporate Value Chain (Scope 3) Accounting and Reporting Standard (WRI/WBCSD)

Table [6.1] Criteria for identifying relevant scope 3 activities

Criteria	Description
Size	They contribute significantly to the company's total anticipated scope 3 emissions (see section 7.1 for guidance on using initial estimation methods)
Influence	There are potential emissions reductions that could be undertaken or influenced by the company (see box 6.2)
Risk	They contribute to the company's risk exposure (e.g., climate change related risks such as financial, regulatory, supply chain, product and customer, litigation, and reputational risks) (see table 2.2)
Stakeholders	They are deemed critical by key stakeholders (e.g., customers, suppliers, investors, or civil society)
Outsourcing	They are outsourced activities previously performed in-house or activities outsourced by the reporting company that are typically performed in-house by other companies in the reporting company's sector
Sector guidance	They have been identified as significant by sector-specific guidance
Other	They meet any additional criteria for determining relevance developed by the company or industry sector

- Disclosure Score: Rows pertaining to all Scope 3 categories are scored, with the exception of "other - upstream" and "other - downstream".

To achieve full points, a company will need to select "relevant – calculated", "not relevant – calculated" or "not relevant – explanation given" and fully complete the row for each of the 15 categories.

A smaller amount of points will be available for each row where the company has indicated that the row is relevant, but has not yet completed the calculation.

Fewer points will be available for each row where the company indicates that they have not evaluated the category.

Blank or incomplete rows will not be awarded any points.

- Performance Score: There are no performance points awarded for this question. For performance



points to be awarded for question 14.3, the category of Scope 3 emissions must have been disclosed here in full.

Q14.2: Please indicate the verification/assurance status that applies to your Scope 3 emissions

Please respond to this question by selecting one of the options from the list below, which will be available as a drop down menu in the ORS.

- No emissions data provided
- No third party verification or assurance
- Third party verification or assurance underway but not yet complete - first year it has taken place
- Third party verification or assurance underway but not yet complete - last year's statement available
- Third party verification or assurance complete

Note that this question applies to Scope 3 emissions only. CDP regards verification/assurance as a process undertaken by an independent third party. Please only state that you have had or are having verification/assurance carried out if it is by an independent third party. If you have had a proportion of your Scope 3 emissions verified, please select the option that applies to these emissions; you will be given an opportunity in question 14.2a to provide further details on this.

It is recognized that for some companies, the verification/assurance schedule is out of synchronization with the CDP disclosure process and therefore it is impossible to complete the verification/assurance process before the CDP deadline. Where this is the case you should select one of the verification or assurance underway options, whichever best describes your situation.

In subsequent questions companies will be asked to provide evidence of the third party verification that they select here. Companies are advised to verify that their evidence can demonstrate all of the requirements set by CDP before answering this question to confirm that their activities comply, e.g. by consulting with their verifier/assurer. Full details are provided in the guidance for question 14.2b. If certain information requirements set by CDP are not available in the standard assurance statement provided by your verifier, CDP have produced a template that can be used in conjunction with the original assurance statement – see **Box 16** (in the guidance section for Page 8) for further details.

If you select either “Third party verification or assurance underway but not yet complete - first year it has taken place”, “Third party verification or assurance underway but not yet complete - last year's statement available”, or “Third party verification or assurance complete” you will be directed to questions 14.2a and 14.2b. If you select “No emissions data provided” or “No third party verification or assurance” you will be directed to the next question, question 14.3.

- **Disclosure Score:** Disclosure points for selection of an option from the drop down list. Note that companies that select “No emissions data provided” or “No third party verification or assurance” will be scored out of the maximum points available for questions 14.2a and 14.2b. Companies that do not answer the question/leave the questions blank will be scored out of the maximum points available for questions 14.2, 14.2a and 14.2b and therefore their overall score for this section will be adversely affected.
- **Performance Score:** There are no performance points awarded for this question.

Q14.2a: Please indicate the proportion of your Scope 3 emissions that are verified/assured

This question only appears if you have selected “Third party verification or assurance underway but not yet complete - first year it has taken place”, “Third party verification or assurance underway but not yet complete



- last year's statement available", or "Third party verification or assurance complete" in answer to question 14.2.

It may be the case that only a sub-section of your emissions have been verified/assured. Please identify what proportion of your Scope 3 emissions have been subject to the verification/assurance process. If you are reporting third party verification or assurance underway, your entries into the table should reflect the proportion of emissions that are being subject to verification/assurance for the current reporting year, with the exception of the statement. It is acknowledged that in most cases companies have yet to measure all their relevant Scope 3 emissions; where this is the case identify the percentage of those emissions sources measured/estimated that have been subject to verification/assurance by selecting one of the following options:

- More than 0% but less than or equal to 20%
- More than 20% but less than or equal to 40%
- More than 40% but less than or equal to 60%
- More than 60% but less than or equal to 80%
- More than 80% but less than or equal to 90%
- More than 90% but less than or equal to 100%

Note that this question refers to the proportion of your measured emissions over which you have sought verification, not the sampling regime that the verifier employed.

- **Disclosure Score:** Disclosure points awarded for selection of an option from the drop down list.
- **Performance Score:** There are no performance points awarded for this question.

Q14.2b: Please provide further details of the verification/assurance undertaken, and attach the relevant statements

This question only appears if you have selected "Third party verification or assurance underway but not yet complete - first year it has taken place", "Third party verification or assurance underway but not yet complete - last year's statement available", or "Third party verification or assurance complete" in answer to question 14.2.

Please complete your response to this question in the table provided in the ORS and reproduced below. The information required should be available on your verification/assurance statement or, if verification/assurance is still underway, should be available from your verifier/assurer.

If you are reporting third party verification or assurance underway, your entries into the table should reflect the proportion of emissions that are being subject to verification/assurance for the current reporting year, with the exception of the statement that 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 the event that this is the 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 the column to which the statement is attached).

Type of verification or assurance	Relevant verification standard	Attach the document

If you wish to complete multiple rows, use the “Add Row” button to the bottom right of the table. See the bullet points below for instructions on how to complete the columns.

- Type of verification or assurance: This column relates to the level 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: (Note that the examples of standards that apply to each level of assurance are not exhaustive and are provided for illustrative purposes only)
 - Not applicable
 - In very few cases, usually program related compliance, the verification standard does not include for a level of assurance; in this case select this option.
 - Limited assurance
 - This is one of the most common levels of assurance and, for example, 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 AT101.
 - 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”.
 - High assurance
 - For example, this is appropriate to verification undertaken in accordance with AA1000 and AT101.
 - 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.
- Relevant verification standard: This column captures the verification standard to 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 – see **Box 16** for further details. The verification standard should be stated on the verification statement. Select from the following options; use “Other” if the standard you are using is not included:
 - AA1000AS
 - ASAE3000
 - Assurance Standard 3410N
 - Attestation standards established by AICPA (AT101)
 - Canadian institute of chartered accountants (CICA) Handbook: Assurance Section 5025
 - CCX verification standard
 - Certified emissions measurement and reduction scheme (CEMARS)
 - Compagnie nationale des commissaires aux comptes (CNCC)
 - Corporate GHG verification guidelines from ERT
 - DNV verisustain protocol/ verification protocol for sustainability reporting
 - ERM GHG performance data assurance methodology

- o ISAE3000
 - o ISO14064-3
 - o RevR6 procedure for assurance of sustainability report
 - o Spanish institute of registered auditors (ICJCE)
 - o The Climate Registry's general verification protocol
 - o Other, please specify
- Attach the document: Click on “Browse” to locate the appropriate file and then “Attach” to attach the document to the response. Note the requirements for the statement detailed below and the option to use the CDP template as detailed in **Box 16**. If you have multiple documents for a single verification (e.g. if you have multiple facility verification reports all covered under a single verification standard) you should attach these as a zip file. All companies should attach a verification statement here unless they have selected “Third party verification or assurance underway but not yet complete - first year it has taken place” in response to question 14.2 – in this case companies should leave this column blank. The statement should:
 - (i) Clearly state that GHG emissions have been verified or assured as part of the process. If the statement refers to other documents that has been verified (such as Sustainability Report, Financial Report, GRI etc.) where items verified are specified, please attach those to the question as well;
 - (ii) Relate to the relevant scope;
 - (iii) Clearly state the opinion and type of verification/assurance that has been given and the verification standard used (see Box 13 for more information on accepted verification standards). These should match the selections made in columns 1 and 2;
 - (iv) Covers the current reporting year.
 - Disclosure Score: Disclosure points are awarded for this question. Points are awarded for completing columns 1 and 2. Points are also awarded for the provision of a statement. Please note that hyperlinks will not be scored even if they are part of the attachment. Please provide all the relevant documents as attachments.
 - (i) If the verification/assurance process is completed, the statement should meet and include the following criteria to score points: It clearly relates to GHG emissions’ verification/assurance;
 - (ii) It relates to the relevant scope.
 - (iii) It clearly states the opinion and type of verification/assurance that has been given and the verification standard* used. These should match the selections made in columns 1 and 2.
 - (iv) It covers the current reporting year

If the verification/assurance process is not yet completed and last year’s statement is being provided instead, the statement should meet and include the following:

- (i) It clearly relates to GHG emissions’ verification/assurance;
- (ii) It relates to the relevant scope.
- (iii) It clearly states the type of verification/assurance that has been given and the verification standard* used.
- (iv) It covers the 12-month period prior to the current reporting year.

Additionally, in both of the instances given above, disclosure points will not be awarded if a statement is clearly not an assessment of the accuracy and completeness of the reported GHG information, including the emissions figure and its conformity to pre-established GHG accounting



and reporting principles and it has not been completed by an independent third party to appropriate standards*.

- **Performance Score:** Where maximum disclosure points are achieved, this question is also eligible for performance scoring.

*See Box 16 (under question 8.6) for details of accepted verification standards.

Q14.3: Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

This question requires you to identify whether, for any of the Scope 3 emissions that you are evaluating, you are able to determine the change in emissions that has occurred from the previous year.

The drop down menu options available are:

- Yes
- No, this is our first year of estimation
- No, we don't have any emissions data

If you select "Yes" you will be directed to question 14.3a (below). If you select "No" you will be directed to question 14.4.

- **Disclosure Score:** Disclosure points awarded for selection of a drop down menu option.
- **Performance Score:** There are no performance points awarded for this question, but performance points for 14.3a are dependent on the selection made at 14.3.

Q14.3a: Please complete the table

This question only appears if you answer "Yes" in response to question 14.3.

Please answer this question by categorizing the changes that have occurred in your emissions, using the table provided in the ORS and reproduced below. You are asked to break down all the different factors that have influenced your overall change in emissions for each source of Scope 3, either positively or negatively. You are asked to break down all these different factors, describe them each in a separate row, and provide the value for the change in overall emissions that is attributed to each of the factors. A worked example is included in **Box 25** overleaf.

For sources that you have only begun to measure in the reporting year you can leave columns 2-4 blank and explain using the comment column; if this is the only source you are measuring you should have selected "No, this is our first year of estimation" in response to question 14.3, and therefore would not be presented with this question. In the unlikely event that companies have genuinely not experienced any change in emissions for any of the Scope 3 sources, they should complete the row "Other", specifying "No change" in the text box provided and then enter 0 in column 3 and either of the options from column 4 (to ensure that they are not penalized on disclosure scoring – see below).

Emission reduction activities could arise from a number of different sources. If your emissions for a specific Scope 3 source has 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 one row in 14.3a. Please note that even if companies have experienced no change overall or an increase in absolute emissions for a Scope 3 source, CDP still wants companies to disclose reduction activities.

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment

You can complete multiple rows using the “Add Row” button to the bottom right of the table.

- **Source of Scope 3 emissions:** Select from
 - Purchased goods & services
 - Capital goods
 - Fuel- and energy-related activities (not included in Scopes 1 or 2)
 - Upstream transportation & distribution
 - Waste generated in operations
 - Business travel
 - Employee commuting
 - Upstream leased assets
 - Investments
 - Downstream transportation and distribution
 - Processing of sold products
 - Use of sold products
 - End-of-life treatment of sold products
 - Downstream leased assets
 - Franchises
 - Other (upstream)
 - Other (downstream)

- **Reason:** Select the option that best describes the reason for particular changes in emissions that you have observed between the previous and current reporting years.
 - Emissions reduction activities
 - This refers to changes in emissions that have occurred as a result of proactive emission reduction initiatives or activities, such as those detailed in response to question 3.3.
 - Divestment
 - This refers to changes that occur as a result of divestment of certain aspects of the businesses.
 - Acquisitions
 - This refers to changes that occur as a result of acquiring another company/subsidiary/facility.
 - Mergers
 - This refers to changes that occur as a result of business mergers.
 - Change in output
 - 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, declines in sales due to the global recession, or release of a new product.
 - Change in methodology

- This refers to changes that occur due to alterations in the way that the inventory is calculated, for example changes in emissions factors used or changes in methodology protocol followed.
 - Change in boundary
 - 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
 - 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. greater use of fuel.
 - Unidentified
 - Select this option if you are not able to identify the reason for the change in emissions from year to year.
 - Other, please specify
 - Select this option if there is an alternative reason for the change and enter the reason in the text box that appears.
- **Emissions value (percentage)**
 - Enter the change in emissions attributed to the reason (factor) provided in column 2 as a percentage of the Scope 3 source emissions. This value should not be greater than 999 and should not have more than two decimal places. There is no need to enter the % symbol. This value should be calculated as follows:

$$\left[\frac{\text{Change in emissions of the specific Scope 3 source attributed to the reason described in column 2}}{\text{Previous year emissions for the specific Scope 3 source}} \right] \times 100$$

- **Direction of change:** Select from
 - Increase
 - Decrease
- **Comment:** Use this text box to provide any additional explanation that is relevant to capture the full complexity of the emissions changes, using no more than 2,400 characters.
- **Disclosure Score:** The first four columns must be completed to be awarded disclosure points for this question.
- **Performance Score:** Performance points apply where columns 1 to 4 have been completed, the reason selected is “Emissions reduction activities” and the direction of change is “Decrease”. Points awarded are scaled according to the size of emissions reductions made.

Box 25: Change in Scope 3 emissions, a worked example

Sources of Scope 3 emissions	Reason	Emissions value (percentage)	Direction of change	Comment
Business travel	Divestment	10	Decrease	We sold off one of our subsidiaries, Company X, during the reporting year. This has affected the emissions in all the Scope 3 categories on which we have previously reported. Business travel emissions have dropped because we now have fewer staff.
Upstream leased assets	Divestment	10	Decrease	We sold off one of our subsidiaries, Company X, during the reporting year. Company X was located entirely in leased buildings and as a result emissions in this category have fallen.
Business travel	Emission reduction activities	2	Decrease	Business travel emissions have fallen because we sold off a subsidiary, Company X, and we now have fewer staff flying on business. Business travel emissions have also fallen due to a staff incentive scheme to encourage less business air travel.
Purchased goods & services	Divestment	10	Decrease	Our output has decreased this reporting year due to the sale of our subsidiary, Company X. This has impacted the amount of goods we purchase from our suppliers.
Purchased goods & services	Change in output	2	Increase	Excluding Company X, the subsidiary that we sold off this reporting year, output from other parts of our business has increased, leading to increased purchasing of goods from our suppliers.
Purchased goods & services	Change in methodology	0.5	Decrease	We have started gathering some emissions data from our suppliers. This data has in some cases replaced the industry average emission factors that we were using and as a result, we have seen a small decrease in our emissions in this category.



Q14.4: Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain
- No, we do not engage

Your selection here will drive the remaining question on this page. You should select all that apply for the reporting year, however if you select “No, we do not engage” do not select any of the other options. Other partners in the value chain are any companies that you work with in your up- or downstream activities that are not your suppliers or customers. For example, you could select this option if you engage with your franchisees on GHG emissions and climate change strategies.

- **Disclosure Score:** One or more check boxes should be selected for points to be awarded. If “no, we do not engage” has been selected in addition to any of the other options, the “no” route will be scored zero out of the maximum available points.
- **Performance Score:** There are no performance points associated with this question.

Q14.4a Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

This question only appears if “Yes, our suppliers”, “Yes, our customers” or “Yes, other partners in the value chain” is ticked in response to question 14.4.

Please provide your answer in the text box provided in the ORS. Methods of engagement could include, but are not limited to, one to one meetings or written correspondence, collaborative projects, holding training events, advertising etc. Your strategy for prioritizing engagements should detail how you have chosen the parts of the value chain as well as the individual partners to focus your engagement on. Finally, please detail how you have, or propose to, measure success and any positive outcomes achieved in the reporting year.

If you have selected multiple options in question 14.4 please be clear which value chain partners each part of your response is referring to and include all that you have selected. If you have selected “Yes, other partners in the value chain” please also provide details of which parts of the value chain they are.

Rich text is enabled for this question if needed and the character limit is 5000 characters.

If you have ticked “Yes, our suppliers” you will be asked a further two questions regarding these engagement activities (questions 14.4b and 14.4c). If not, you have no further questions on this page.

- **Disclosure Score:** Disclosure points are available for describing the methods of engagement, the strategy for prioritizing engagements and measures of success.
- **Performance Score:** There are no performance points associated with this question.

Q14.4b To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

This question only appears if “Yes, our suppliers” is ticked.

Please provide your response in the table in the ORS and reproduced below.

Number of suppliers	% of total spend	Comment
Numeric field – enter a numeric value with no decimal places and no punctuation	Percentage field – enter a numeric value up to 100 with up to 2 decimal places and no punctuation	Text field – use no more than 2400 characters. Use this column to provide any additional contextual information that you think is relevant. For example this could include alternative measures of importance of the suppliers selected for engagement.

- Disclosure and Performance: This question is not scored.

Q14.4c If you have data on your suppliers’ GHG emissions and climate change strategies, please explain how you make use of that data

This question only appears if “Yes, our suppliers” is ticked.

Please provide your response in the table in the ORS and reproduced below.

How you make use of the data	Please give details
Select from: We do not have any data Use in supplier scorecards Identifying GHG sources to prioritize for reduction actions Managing physical risks in the supply chain Managing the impact of regulation in the supply chain Stimulating innovation of new products Other	Text field – use no more than 2400 characters.

You can make multiple entries to the table by clicking the “Add Row” button to the bottom right of the table.

- Disclosure and Performance: This question is not scored.

Q14.4d Please explain why not and any plans you have to develop an engagement strategy in the future

This question only appears if “No, we do not engage” is ticked.

Please use the text box provided, using no more than 5,000 characters. Please clearly separate the two elements of the question in your response. Rich text can be used in this response if required.

- Disclosure Score: Disclosure points are available for explaining why the company does not engage with the supply chain, and stating whether there are plans to develop an engagement strategy in future.
- Performance Score: There are no performance points associated with this question.

Sign off Module Guidance

CDP asks companies to identify the person that has signed off (approved) the CDP response. This is not compulsory and will not be associated with either a disclosure or performance score. However, this information does signal to investors that responsibility is being taken for the response and the information contained therein.

Please enter the name of the individual that has signed off (approved) the response and their job title in the text box provided.