

DRAFT: CDP 2018 climate change questionnaire for the energy sectors

Introduction to this document

This document is a proposed draft of the CDP 2018 climate change questionnaire for organizations in the **oil & gas**, **coal** and **electric utilities** sectors. Questions are not final and are subject to change. Some of the questions are derived from the 2017 CDP [oil & gas module](#) and [electric utilities module](#) and readers may wish to refer to them for context.

Question numbering

Question numbers in this document are subject to change. In some cases, question numbers from CDP's 2017 [climate change questionnaire](#), oil & gas and electric utilities modules are provided for reference. Questions that apply to all companies are prefixed 'CC'; those that apply only to oil & gas, coal, and electric utility companies are prefixed 'CC-OG', 'CC-CO', and 'CC-EU', respectively.

Tags

This document uses tags to characterize questions:

- **OG**: This question is applicable to organizations operating in the oil and gas (O&G) sector
- **CO**: This question is applicable to organizations operating in the coal sector
- **EU**: This question is applicable to organizations operating in the electric utilities sector
- **New question**: This is a new question proposed by CDP
- **Modified questions**: This is a modification of an existing CDP question
- **No change**: This question has not changed (note the question number may have changed)
- **TCFD**: This question supports disclosure in line with the recommendations of the [Task force on Climate-related Financial Disclosures](#) (TCFD).
- **IIGCC**: This question supports disclosure in line with the expectations and questions outlined in the Institutional Investor Group on Climate Change (IIGCC) investor expectations of [O&G](#), [Electric Utility](#) and [Mining](#) companies.
- **IPIECA**: This question supports O&G company disclosure in line with the IPIECA [Climate Change Reporting Framework](#) - A pilot guidance document for the oil and gas industry
- **SME**: This question is applicable to responders answering the supply chain climate change information request for Small & Medium sized Enterprises (SMEs).

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CC0. Introduction

Tags: No change; SME

(CC0.1) Introduction

Please give a general description and introduction to your organization

(CC0.2) Reporting year

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

(CC0.3) Country list configuration

Please select the countries for which you will be supplying data

(CC0.4) Currency selection

Please select the currency in which you would like to submit your response

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CC1. Governance

Board and management responsibility

SECTION RATIONALE: CDP has added these questions to elicit the level at which climate-related issues are structurally handled at the board-level, as well as the frequency and nature of these discussions. These questions support TCFD Governance recommendations a): Describe the board's oversight of climate-related risks and opportunities; and b): Describe management's role in assessing and managing climate-related risks and opportunities. These questions also support disclosure in line with the IIGCC's investor expectations that energy companies clearly define board and executive management responsibilities, capabilities and processes for managing the low-carbon transition and oversight of climate-related risks and opportunities.

Tags: Modified question; TCFD; IPIECA

RATIONALE: CDP has modified CC1.1 (Where is the highest level of direct responsibility for climate change within your organization?), to ask if there is board level oversight of climate change issues.

(CC1.1) **Is there board level oversight of climate change issues?** (Yes or No)

If Yes to CC1.1:

Tags: No change; IIGCC

(CC1.1a) **Please identify the position of the individual or name of the committee with this responsibility.**

Tags: New question; TCFD; IIGCC; IPIECA

(CC1.1b) **Please provide further details on the board's/committee's (appointed by the board) oversight of climate-related issues.**

Are climate-related issues a scheduled agenda item?	Into which governance mechanisms are climate-related issues integrated?	Please explain	Comment
Select from: Scheduled – all meetings; Scheduled – some meetings; Sporadic – as important matters arise; Other, please specify	Multi-select: Reviewing and guiding strategy and major plans of action; Risk management policies; Annual budgets; Business plans; Performance objectives; Monitoring implementation and performance; Overseeing major capital expenditures; Acquisitions and divestitures; Incentives; Monitoring and overseeing progress against goals and targets for addressing climate-related issues; Other, please explain		

Tags: New question; TCFD

(CC1.1c) **Below board-level, please identify the position of the individual or name of the committee in management with the highest responsibility for climate change.**

Tags: New question; TCFD

(CC1.1d) **Please identify and describe the climate-related responsibilities that have been assigned to management-level positions or committees.**

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Name of the committee/ Position of individual	Responsibility	Description of responsibility	Accountability	How regularly are climate-related issues featured on management committee's agenda	Comment
	Select all that apply: Assessing risks and opportunities; Managing risks and opportunities; Other, please specify.			Select from: Scheduled – all meetings; Scheduled – some meetings; Sporadic - as important matters arise; Other, please specify	

[Add row]

Individual performance

Tags: No Change; TCFD; IIGCC; IPIECA

(CC1.2) Do you provide incentives for the management of climate change issues, including the attainment of targets? (Yes or No)

If Yes to CC1.2:

(CC1.2a) Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment

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CC2. Risk & opportunity management

Time horizons

Tags: New question; TCFD

RATIONALE: CDP has added this question to understand the different timescales at which businesses, strategy and financial planning consider climate-related issues. Subsequent questions on risk and opportunity disclosure, as well as transition planning, relate to different time horizons, hence their definition is requested here. This question supports TCFD Strategy recommendation a): Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

(CC2.1) Please describe what your company considers to be short-, medium- and long-term horizons.

Time horizon	Definition	Comment
Short-term		
Medium-term		
Long-term		

Substantive change

Tags: New question; TCFD

RATIONALE: CDP has added this question to elicit how organizations identify which risks and opportunities could have a substantive impact on their operations. This question supports TCFD Governance recommendation a): Describe the board's oversight of climate-related risks and opportunities; and Strategy recommendation b): Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

(CC2.2) Please describe the processes used to determine which climate-related risks and opportunities could have a substantive financial impact on your business, operations, revenue and expenditure, assets and liabilities, and capital allocation.

Risk & opportunity identification approach

SECTION RATIONALE: CDP has added these questions to further elicit the process through which climate-related risks and opportunities are determined, handled and integrated at an organization. These questions support TCFD Governance recommendation b): Describe management's role in assessing and managing climate-related risks and opportunities; and Risk Management recommendations a): Describe the organization's processes for identifying and assessing climate-related risks; b): Describe the organization's processes for managing climate-related risks; and c): Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

Tags: New question; TCFD; SME; IPIECA

(CC2.3) Please select the option that best describes your risk identification and assessment procedures with regard to climate change risks and opportunities.

Select from:

- Integrated into multi-disciplinary company-wide risk identification and assessment processes

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- A specific climate change risk identification and assessment process
- There are no documented processes for identifying and assessing risks and opportunities from climate change

If, in response to CC2.3, 'Integrated into multi-disciplinary company-wide risk identification and assessment process; or a specific climate change risk identification and assessment process:

Tags: Modified question; TCFD

RATIONALE: This question has been modified from table CC2.1a (2017) and the question text has been reworded.

(CC2.3a) Please provide further details on your risk identification and assessment procedures with regard to climate change risks and opportunities.

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Select from: Six-monthly or more frequently; Annually; Every two years; Sporadically, not defined; Never	Select from: Board or individual/ sub-set of the board or committee appointed by the board; Other committee; Senior manager; Other manager; Nobody		Select from: Up to 1 year; 1 to 3 years; 3 to 6 years; > 6 years; Unknown	

Tags: New question; TCFD

(CC2.3b) Please describe your risk management procedures for identifying and assessing climate-related risks and opportunities.

Tags: New question; TCFD

(CC2.3c) Please identify which of the following criteria are factored into your organization's climate risk assessments.

Criteria	Relevance	Please explain
Current regulation	Select from: Relevant, included; Relevant, included for some suppliers, facilities, or product lines; Relevant not yet included; Not relevant, included; Not relevant; Not evaluated.	
Emerging regulation		
Upstream value chain issues		
Downstream value chain issues		
Other, please explain		

If, in response to CC2.3, there are no documented processes for identifying and assessing risks and opportunities from climate change:

Tags: Modified question

RATIONALE: This question has been modified from CC2.1d (2017). The question text and table columns have been reworded and modified.

(CC2.4d) Please explain why you do not have a process in place for identifying and assessing risks and opportunities from climate change, and whether you plan to introduce such a process in the future.

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Primary reason	Please explain
Select from: Climate change risk assessment in progress; We are planning to introduce one in the next two years; Important but not an immediate business priority; Judged to be unimportant; No instruction from management; Lack of internal resources; Other, please specify	

Risk disclosure

SECTION RATIONALE: CDP has modified CC5.1 (2017) to align more closely with TCFD recommended disclosures. It now additionally asks about assets, liabilities, and capital allocation. The table has also been modified with some columns being re-worded, some being removed (Potential impact, Direct/Indirect, Estimated financial implications of the risk before taking action, Methods you are using to manage this), some being added (Financial Impact Driver, Financial Impact). These questions support TCFD Strategy recommendations a): Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term; and b): Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning. These questions also support disclosure in line with the IIGCC's investor expectations that energy companies should assess climate-related risks and opportunities as well as their impact on the business.

Tags: Modified question; TCFD; SME; IIGCC; IPIECA

(CC2.5) Have you identified any inherent climate change risks that have the potential to have a substantive financial impact on your business, operations, revenue or expenditure, assets and liabilities, and capital allocation? (Yes or No)

If Yes to CC2.5:

Tags: Modified question; TCFD; SME; IIGCC; IPIECA

(CC2.5a) Please provide details of your identified risks that have the potential to have a substantive financial impact on your business, operations, revenue or expenditure, assets and liabilities, and capital allocation.

Identifier	Climate-related risk driver	Company specific description	Time horizon	Financial impact driver	Estimated financial impact	Financial impact	Likelihood	Magnitude

Opportunity disclosure

SECTION RATIONALE: CDP has modified CC6.1 (2017) to align more closely with TCFD recommended disclosures. It now additionally asks about assets, liabilities, and capital allocation. The table has also been modified with some columns being re-worded, some being removed (Potential impact, Direct/Indirect, Estimated financial implications of the opportunity before taking action, Methods you are using to manage this), some being added (Financial Impact Driver, Financial Impact). These questions support TCFD Strategy recommendations a): Describe the climate-related risks and

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opportunities the organization has identified over the short, medium, and long term; and b): Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.

Tags: Modified question; TCFD; SME

(CC2.6) Have you identified any inherent climate change opportunities that have the potential to have a substantive financial impact on your business, operations, revenue or expenditure, assets and liabilities, and capital allocation? (Yes or No)

If Yes to CC2.6:

Tags: Modified question; TCFD; SME

(CC2.6a) Please provide details of your identified opportunities that have the potential to have a substantive financial impact on your business, operations, revenue or expenditure, assets and liabilities, and capital allocation.

Identifier	Climate-related opportunity driver	Company specific description	Time horizon	Financial impact driver	Estimated financial impact	Financial impact	Likelihood	Magnitude

Risk management

Tags: No change; IIGCC; IPIECA

(CC2.7) Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities. (CC2.1, 2017)

Select from:

- Integrated into multi-disciplinary company-wide risk management processes
- A specific climate change risk management process
- There are no documented processes for managing risks and opportunities from climate change

If, in response to CC2.7, 'Integrated into multi-disciplinary company-wide risk management process; or a specific climate change risk management process:

Tags: Modified question; TCFD; IIGCC; IPIECA

RATIONALE: CDP has modified this question from CC2.1a (2017). Rather than a table asking about frequency of monitoring, geographical areas considered, and how far into the future risks are considered, the question now focuses on general management of climate-related risks and opportunities. This question supports TCFD's Risk Management recommendation b): Describe the organization's process for managing climate-related risks.

(CC2.7a) Please describe your process(es) for managing climate-related risks and opportunities.

Tags: Modified question; TCFD; IIGCC; IPIECA

RATIONALE: CDP has modified this question from CC2.1b (2017). Rather than asking about how risk and opportunity identification processes are applied at both the company and asset level, the question now asks how risks and opportunities are integrated into your business. This question supports TCFD's

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Risk Management recommendation c): Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

(CC2.7b) Please describe where and how your identified risks and opportunities have been integrated into your business.

Area	Relevance	Risk/Opportunity	Description
Products and services	Select from: Relevant, included; Relevant, included for some suppliers, facilities, or product lines; Relevant not yet included; Not relevant, included; Not relevant; Not evaluated.	Multi-select which risks/opportunities have impacted this aspect of business strategy	Open text
Supply chain and/or value chain			
Adaptation and mitigation activities			
Investment in R&D			
Operations			
Other, please specify			

Tags: New question; TCFD; IIGCC

RATIONALE: CDP has added this question to understand how climate-related issues may affect an organization's financial planning process. It supports TCFD Strategy recommendation b): Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.

(CC2.7c) Please describe where and how your identified risks and opportunities have served as an input to your financial planning process.

	Area	Relevance	Risk/Opportunity	Description
Income statement	Revenues	Select from: Relevant, included; Relevant, included for some suppliers, facilities, or product lines; Relevant not yet included; Not relevant, included; Not relevant; Not evaluated.	Multi-select the risks or opportunities that have impacted this aspect of business strategy	
	Operating costs			
	Capital expenditures / capital allocation			
Balance sheet	Acquisitions and divestments			
	Access to capital			
	Assets			
	Liabilities			
	Other, please specify			

Tags: Modified question; TCFD; IIGCC

RATIONALE: The table for this question has been modified from the one presented in CC2.1d (2017).

If, in response to CC2.7, there are no documented processes for managing risks and opportunities from climate change:

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(CC2.7d) **Please explain why you do not have a process in place for managing risks and opportunities from climate change, and whether you plan to introduce such a process in the future.**

Primary reason	Please explain
Select from: Climate change risk assessment in progress; We are planning to introduce one in the next two years; Important but not an immediate business priority; Judged to be unimportant; No instruction from management; Lack of internal resources; Other, please specify	

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CC3. Strategy and scenario analysis

Strategy

SECTION RATIONALE: The low-carbon transition has strategic implications for businesses in the short, medium and long-term, therefore CDP has added questions to elicit how companies are evaluating their climate risks. To quantify these potential risks, companies can use scenario analysis to understand how various potential climate pathways affect their business model. Transition planning is also an important evolution of strategic environmental planning, and includes all the relevant changes that need to be made to the company's business model before the company can adjust to a low-carbon future. This is especially relevant for companies operating in high impact sectors. The following questions support the TCFD's Strategy recommendation c): Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario. Climate-related scenario analysis and transition planning disclosure was piloted by CDP in the [Assessing Low-Carbon Transition](#) (ACT) initiative in 2016.

Tags: No change; TCFD; IIGCC; SME

(CC3.1) Is climate change integrated into your business strategy? (CC2.2, 2017)

If Yes to CC3.1:

Tags: New question; TCFD; IIGCC

(CC3.1a) Please indicate whether your company uses climate-related scenario analysis to inform your business strategy?

Select from:

- No, and we do not anticipate doing so in the next 2 years
- No, but we anticipate doing so in the next 2 years
- Yes, qualitative
- Yes, quantitative
- Yes, qualitative and quantitative

If Yes to CC3.1:

Tags: New question; TCFD; IIGCC

(CC3.1b) Please indicate whether your company has developed a low-carbon transition plan to support the long-term business strategy?

Select from:

- Yes
- No
- In development

If Yes to CC3.1:

Tags: No change; TCFD; IIGCC; SME

(CC3.1c) Please describe how climate change is integrated into your business strategy. (CC2.2a, 2017)

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If Yes to CC3.1a:

Tags: New question; TCFD; IIGCC

RATIONALE: CDP has asked this question to elicit details about the scenarios being analyzed and about how their outcomes are used within the organization. CDP proposes an open-ended question to allow for a variety of scenarios and levels of detail.

(CC3.1d) Please disclose details of your company's use of climate-related scenario analysis.

Identifier	Details
2DS, IEA 450, Greenpeace, DDPP, or TRS 1, 2,3 or PRS 1, 2, 3	Companies should disclose their inputs, assumptions and analytical methods used for this scenario For existing scenarios (e.g. IEA 450 etc.) companies should disclose how they have altered/changed the inputs, assumptions or analytical methods to cater to their needs

[Add row]

If Yes to (CC3.1b):

Tags: New question; TCFD; IIGCC

RATIONALE: CDP proposes an open-ended text field since low-carbon transition planning is a relatively new concept with few standardized frameworks. This allows for companies to answer with varying degrees of detail.

(CC3.1e) Please disclose details of your company's low-carbon transition plan.

If, in response to CC3.1, climate change is not integrated into your business strategy:

(CC3.1f) Please explain why climate change is not integrated into your business strategy. (CC2.1d, 2017)

If No in response to CC3.1a:

Tags: New question

(CC3.1g) Please describe why your company does not use climate-related scenario analysis to inform your business strategy.

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CC4. Targets and performance

Targets

Tags: Modified questions; TCFD; SME; IIGCC

RATIONALE: An effort was made to merge the multitude of targets questions and some of the performance questions. Furthermore, the information on the completion rate of the targets (CC3.1c, 2017) has also been included. This was done to center the relevant information in one place and make it easier for data users to compare targets. These questions also support disclosure in line with the IIGCC's investor questions for energy companies around emission reduction target setting, how targets are tracked, and whether they are aligned with science-based emissions reduction targets.

(CC4.1) **Did you have an emission reduction target that was active in the reporting year?**
 (CC3.1, 2017) (Absolute and/or intensity target)

If, in response to CC4.1, 'Absolute target', go to CC4.1a; and if 'Intensity target', go to CC4.1b:

(CC4.1a) **Please provide details of your absolute target.**

ID	Scope	% emissions in Scope	% reduction from base year	Base Year	Start year	Base year emissions covered by target (metric tons CO _{2e})	Target year	Is this a science-based target?	% complete (emissions)	Target Status	Please explain

(CC4.1b) **Please provide details of your intensity target.**

This question uses a modified table based on the table above (CC4.1a):

- The 'Base year emissions covered by target' column is replaced with a 'Normalized base year emissions column';
- A column for 'Metric' selection is included;
- A column for the '% change anticipated in absolute Scope 1+2 emissions' is included; and
- A column for the '% change anticipated in absolute Scope 3 emissions' is included

Methane targets

SECTION RATIONALE: CDP has previously presented the below questions on methane targets to O&G companies and proposes to extend them to coal mining companies and electric utilities, as methane emissions may be a significant component of their gross Scope 1 emissions. Please refer to section OG7 of 2017 CDP [oil & gas module](#) for background and detail on these questions on methane targets.

Tags: OG; CO; EU

(CC-OG/CC-CO/CC-EU4.1c) **Did you have a methane-specific emissions reduction target that was active (ongoing or reached completion) in the reporting year and/or were methane emissions incorporated into targets reported in CC4.1/a/b? (OG7.7, 2017)**

Select from:

- Yes, a methane-specific emissions reduction target
- Yes, methane emissions were incorporated into targets reported in CC3

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- Yes, a methane-specific emissions reduction target and methane emissions were incorporated into targets reported in CC3
- No

If Yes, a methane-specific emissions reduction target:

Tags: OG; CO; EU

(CC-OG/CC-CO/CC-EU4.1d) **If you have a methane-specific emissions reduction target that is not detailed as a separate target in CC3, please provide those details here, addressing all of the metrics requested in table CC3.1a or CC3.1b (for an absolute or intensity target, respectively) (OG7.7a, 2017)**

If Yes, methane emissions were incorporated into targets reported in CC3:

Tags: OG; CO; EU

(CC-OG/CC-CO/CC-EU4.1e) **If methane emissions were incorporated into targets reported in CC3 (but not detailed as a separate target), please indicate which target ID(s) incorporate methane emissions, and specify the portion of those targets that is comprised of methane (OG7.7b, 2017)**

If No:

Tags: OG; CO; EU

(CC-OG/CC-CO/CC-EU4.1f) **Please explain: (i) why you do not have a methane-specific emissions reduction target or do not incorporate methane into your targets reported in CC3; and (ii) forecast how your methane emissions will change over the next five years (OG7.7c, 2017)**

Tags: New question; TCFD; SME

RATIONALE: Emissions reduction targets are not the only type of relevant targets that organizations use to drive change. CDP previously asked for renewable energy targets (CC3.1d, 2017). This question has now been removed and replaced with a more open table where disclosers can report on any other climate-related targets. This includes renewable energy, but also includes for example waste and consumption reduction targets.

(CC4.2) Please provide details of other key climate-related targets not already reported in question CC4.1/a/b.

Target	Base year	Start year	Target year	KPI – Metric numerator	KPI – Metric denominator (intensity targets only)	KPI in base year	KPI in target year	Please explain	Part of emissions target
Select from: Renewable energy consumption; Renewable energy production; Waste; Energy usage; Land use; Engagement with suppliers; Other, please specify									

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Emissions performance

Tags: No change; SME; IIGCC; IPIECA

(CC4.3) **How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous year? (CC12.1, 2017)**

If emissions have increased, decreased or remained the same overall:

Tags: Modified question; IIGCC; IPIECA

RATIONALE: We proposed to remove the 'Direction of change' column and enable negative as well as positive numbers in the 'Emissions value' column, which would indicate the direction of change.

(CC4.3a) **Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year (CC12.1a, 2017)**

Reason	Emissions value (percentage)	Please explain and include calculation
Change in renewable energy consumption		
Other emissions reduction activities		
Divestment		
Acquisitions		
Mergers		
Change in output		
Change in methodology		
Change in boundary		
Change in physical operating conditions		
Unidentified		
Other		

Tags: No change

(CC4.3b) **Are your emissions performance calculations in CC4.3 and CC4.3a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure? (CC12.1b, 2017)**

Tags: No change

(CC4.4) **Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources? (CC14.3, 2017) (Yes or No)**

If Yes to CC4.4:

Tags: Modified question

RATIONALE: We proposed to remove the 'Direction of change' column and enable negative as well as positive numbers in the 'Emissions value' column, which would indicate the direction of change.

(CC4.4a) **Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year (CC14.3a, 2017)**

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Comment

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Emissions reduction initiatives

Tags: No change; SME; IIGCC; IPIECA

(CC4.5) Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases) (CC3.3, 2017)

If Yes to CC4.5, complete questions CC4.5a, CC4.5b and CC4.5c:

Tags: No change; IIGCC

(CC4.5a) Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO₂e savings (CC3.3a, 2017)

Stage of development	Number of projects	Total estimated annual CO ₂ e savings in metric tons CO ₂ e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*		
Not to be implemented		

Tags: No change; SME; IIGCC

(CC4.5b) For those initiatives implemented in the reporting year, please provide details in the table below (CC3.3b, 2017)

Activity type	Description of activity	Estimated annual CO ₂ e savings (metric tons CO ₂ e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency – as specified in CC0.4)	Investment required (unit currency – as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment

Tags: No change; IIGCC

(CC4.5c) What methods do you use to drive investment in emissions reduction activities? (CC3.3c, 2017)

Method	Comment

If no to CC4.5:

Tags: No change; SME; IIGCC

(CC4.5d) If you do not have any emissions reduction initiatives, please explain why not. (CC3.3d, 2017)

Tags: No change

(CC4.6) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions? (CC3.2, 2017) (Yes or No)

If Yes to CC4.6:

Tags: No change

(CC4.6a) Please provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions (CC3.2a, 2017)

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Level of aggregation	Description of product/ Group of products	Are you reporting low-carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low-carbon or to calculate avoided emissions	% revenue from low-carbon product/s in the reporting year	Comment

Flaring and methane

SECTION RATIONALE: CDP has previously presented the below questions to O&G companies and proposes to extend them to coal mining companies and electric utilities, as flaring and methane emissions may be relevant to their operations and present a significant environmental, economic and regulatory risk and opportunity. Please refer to section OG7 of 2017 CDP [oil & gas module](#) for background and detail on these questions.

Tags: IPIECA; OG; CO; EU

(CC-OG/CC-CO/CC-EU4.7d) **Please describe your organization's efforts to reduce flaring, including any flaring reduction targets set and/or its involvement in voluntary flaring reduction programs, if flaring is relevant to your operations (OG3.4, 2017)**

[Text field]

Tags: IPIECA; OG; CO; EU

(CC-OG/CC-CO/CC-EU4.7e) **Please describe your organization's efforts to reduce methane emissions and describe your organization's participation in voluntary methane emissions reduction programs (OG7.6/7.6a, 2017)**

[Text field]

Tags: OG; CO; EU

(CC-OG/CC-CO/CC-EU4.7f) **Does your organization conduct leak detection and repair (LDAR), or use other methods to find and fix fugitive methane emissions? (OG7.3, 2017) (Yes or No)**

If yes to CC-OG/CC-CO/CC-EU4.7f:

Tags: OG; CO; EU

(CC-OG/CC-CO/CC-EU4.7g) **Please describe the protocol through which methane leak detection and repair, or other leak detection methods, are conducted, including predominant frequency of inspections, estimates of assets covered, and methodologies employed (OG7.3a, 2017)**

[Text field]

If no to CC-OG/CC-CO/CC-EU4.7f:

Tags: OG; CO; EU

(CC-OG/CC-CO/CC-EU4.7h) **Please explain why not and whether you plan on conducting leak detection and repair, or other methods to find and fix fugitive methane emissions (OG7.3b, 2017)**

[Text field]

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CC5. Metrics

Emissions methodology

Tags: No change

(CC5.1) Please provide your base year and base year emissions (Scopes 1 and 2) (CC7.1, 2017)

Tags: No change; SME; IPIECA

(CC5.2) 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 (CC7.2, 2017)

If you have selected "Other" in CC5.2:

Tags: No change; SME

(CC5.2a) If you have selected "Other" in CC5.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions (CC7.2a, 2017)

Energy

Tags: No change

(CC5.3) What percentage of your total operational spend in the reporting year was on energy? (CC11.1, 2017)

Tags: Modified question

RATIONALE: CDP proposes this consolidated table question, based on existing 2017 question CC11.2 (heat, steam and cooling purchased and consumed, in MWh), adding electricity to the question for a more complete energy consumption profile.

(CC5.4) Please state how much electricity, heat, steam, and cooling in MWh your organization has purchased or acquired, and consumed during the reporting year.

Energy type	MWh
Electricity	
Heat	
Steam	
Cooling	

Tags: New question

RATIONALE: CDP proposes a new leading question on organizations' use of purchased and/or self-produced fuels. Organizations answering 'yes' will be presented with a follow up question.

(CC5.5) Please indicate whether your organization has consumed any fuel for energy purposes during the reporting year. (Yes or No)

If Yes to CC5.5:

Tags: Modified question

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RATIONALE: CDP proposes this follow-up question which consolidates existing 2017 questions CC11.3 (fuel consumption in MWh) and CC11.3a (Fuel type breakdown), with the addition of fuel emissions factors and sources.

(CC5.5a) **Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year by fuel type.**

Fuels	MWh	Emission factor	Emissions factor source

[Add row]

Tags: No change

(CC5.6) **Please provide details of the electricity, heat, steam or cooling amounts that were accounted for at a low carbon emissions factor in the market based Scope 2 figure reported in CC5.11. (CC11.4, 2017)**

Basis for applying a low-carbon emissions factor	MWh consumed associate with low-carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tons CO _{2e} per MWh)	Comment

Tags: New question

RATIONALE: Distributed/on-site power generation, where an organization owns, operates or hosts power generation sources on or within their business facilities, is becoming more common among companies not active in the energy sector.

(CC5.7) **Has your organization produced any electricity, heat, steam, or cooling in the reporting year? (Yes or No)**

If Yes to CC5.7:

Tags: New question

RATIONALE: CDP proposes this follow-up question, based on existing 2017 question CC11.5, for organizations to report power production. This question will give insight into energy production and consumption, as well as the primary power generation source used (e.g. fossil fuel and/or renewable). Electric utilities should complete CC-EU5.7a instead of (or in addition to) CC5.7a.

(CC5.7a) **Please provide details on the produced electricity, heat, steam, or cooling your organization has produced in the reporting year.**

Source	Energy type	Gross MWh generated	Emission factor	Net MWh generated	Comment
	Select from: Electricity; Heat; Steam; Cooling				

[Add row]

If Yes to CC5.7:

Tags: Modified question; IIGCC; EU

RATIONALE: CDP proposes a modified question on power generation (based on EU1.1 and EU2.1, 2017) that should be completed by electric utilities instead of CC5.7a. This question supports disclosure in line with the IIGCC's investor question on electric utilities' power generation asset mix, as a shift from

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centralized generation (based on coal and gas, and supplemented by nuclear and hydro) to distributed generation based on renewables can be disruptive to electric utilities.

(CC-EU5.7a) Please provide a breakdown of your total power generation capacity by source and the associated power generated during the reporting year

Primary power generation source	Nameplate capacity (MW)	Gross generation (MWh)	Net generation (MWh)	Absolute emissions (metric tons CO ₂ e)	Emissions intensity (metric tons CO ₂ e/MWh)
Coal – hard	[Numerical field]	[Numerical field]	[Numerical field]	[Numerical field]	[Numerical field]
Lignite					
Oil					
Gas					
Biomass					
Waste (non-biomass)					
Nuclear					
Geothermal					
Hydroelectric					
Wind					
Solar					
Other renewable					
Total thermal					
Total renewable					
Total					

Tags: New question, EU

RATIONALE: CDP proposes a new question on power transmission and distribution business segments, as this segment of the electric utility sector is subject to new opportunities related to direct power purchase agreements, smart grids and energy storage solutions.

(CC-EU5.7b) Please disclose the following information about your global transmission and distribution business, if applicable

Country	Voltage level (kV)	Annual load (GWh)	Absolute emissions (metric tons CO ₂ e)	Annual energy losses (% of annual load)	Length of network (km)	Number of connections	Area covered (km ²)

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Emissions boundary

Tags: No change

(CC5.8) Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory (CC8.1, 2017)

Scope 1 and 2 emissions data

Tags: No change; TCFD; SME; IIGCC

(CC5.9) Please provide your gross global Scope 1 emissions figures in metric tons CO_{2e}. (CC8.2, 2017)

Tags: No change; SME

(CC5.10) Please describe your approach to reporting Scope 2 emissions. (CC8.3, 2017)

Scope 2, location-based	Scope 2, market-based	Comment

Tags: No change; TCFD; SME; IIGCC

(CC5.11) Please provide your gross global Scope 2 emissions figures in metric tons CO_{2e}. (CC8.3a, 2017)

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment

Tags: No change; IPIECA

(CC5.12) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure? (CC8.4, 2017)

If Yes to CC5.12:

Tags: No change; IPIECA

(CC5.12a) Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure (CC8.4a, 2017)

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded

Scope 3 emissions

Tags: No change; TCFD; SME

(CC5.13) Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions. (CC14.1, 2017)

Sources of Scope 3 emissions	Evaluation status	Metric tons CO _{2e}	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services					

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Capital goods					
Fuel-and-energy-related activities (not included in Scope 1 or 2)					
Upstream transportation and distribution					
Waste generated in operations					
Business travel					
Employee commuting					
Upstream leased assets					
Downstream transportation and distribution					
Processing of sold products					
Use of sold products					
End of life treatment of sold products					
Downstream leased assets					
Franchises					
Investments					
Other (upstream)					
Other (downstream)					

If, in CC5.13, the evaluation status of row 'Use of sold products' is 'Relevant, calculated' or 'Not relevant, calculated':

Tags: New question; TCFD; OG; CO

RATIONALE: The TCFD notes that high emissions in the value chain may accelerate development of alternative technologies in a low-carbon economy, and that the level of Scope 3 emissions informs vulnerability to a significant decrease in future earning capacity. To leverage CDP's O&G and Coal-specific guidance for estimating Scope 3 category 11 (Use of sold products) emissions ([available here](#)), and standardize reporting thereof, we propose the following table for more detailed methodological disclosure than currently afforded in CC14.1.

(CC-OG/CC-CO15.3a) Please disclose the estimation methodology for your Scope 3 use of sold products emissions figure reporting in CC5.13

Methodological approach	Coverage	Activity data	Product info	Sources	Other
Select from: CDP Coal Guidance – Tier 1; CDP Coal Guidance – Higher tier; CDP O&G sales method – Tier 1; CDP O&G sales method – Higher tier; CDP O&G production method – Tier 1; CDP O&G Production method – Higher tier; Other, please specify	Select from: All activity within selected organizational boundary; Other, please specify	[Free text]	[Free text]	[Free text]	[Free text]

[Add row]

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Verification

Tags: Modified question; IPIECA

RATIONALE: To reduce reporting burden and improve data usability by grouping related questions, CDP proposes this modified question, which is a merger of existing 2017 questions CC8.6, CC8.7 and CC14.2 (Scope 1, 2 and 3 verification/assurance status, respectively).

(CC5.14) **Please indicate the verification/assurance status that applies to your reported emissions.**

Scope	Verification/assurance status
Scope 1	Select from: No emissions data provided; No third-party verification or assurance; Third-party verification or assurance process in place
Scope 2	
Scope 3	

If, in CC5.14, Scope 1, Scope 2 and/or Scope 3 emissions have been subject to third-party verification or assurance (complete or underway):

Tags: Modified question; IPIECA

RATIONALE: To reduce reporting burden and improve data usability by grouping related questions, CDP proposes this modified question, which is a merger of existing 2017 questions CC8.6a, CC8.7a and CC14.2a (Scope 1, 2 and 3 verification details, respectively).

(CC5.14a) **Please provide further details of the verification/assurance undertaken for your emissions, and attach the relevant statements**

Scope	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported emissions verified (%)

[Add row]

Tags: No change

(CC5.15) **Please identify if any data points have been verified as part of the third-party verification work undertaken, other than the verification of emissions figures reported in CC5.9, CC5.11 and CC5.13 (CC8.8, 2017)**

Additional data points verified	Comment

Carbon dioxide emissions from biologically sequestered carbon

Tags: No change

(CC5.16) **Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization? (CC8.9, 2017)**

If Yes to CC5.16:

Tags: No change

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(CC5.16a) Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tons CO₂. (CC8.9a, 2017)

Emissions intensity

Tags: Modified question; SME; IIGCC

RATIONALE: To reduce reporting burden and improve data usability by grouping related questions, CDP proposes this modified question, which is a merger of existing 2017 questions CC12.2 (revenue intensity) and CC12.3 (business-relevant intensity).

(CC5.17) Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO₂e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Reason for change
	metric tons CO ₂ e					

[Add row]

Tags: New question; EU

RATIONALE: To standardize electric utility emissions intensity reporting, CDP proposes the following question, based on CC5.17, with MWh generated and MWh transmitted as the metric denominators available for reporting.

(CC-EU5.17) Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO₂e per MWh of gross power generated and/or transmitted

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Reason for change
	Metric tons CO ₂ e	Select from: MWh generated; MWh transmitted				

[Add row]

Tags: New question; IIGCC; CO

RATIONALE: To standardize coal mining emissions intensity reporting, CDP proposes the following question, based on CC5.17, with metric tons of coal produced as the metric denominator available for reporting.

(CC-CO5.17) Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO₂e per metric tons of coal produced

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator (metric tons of coal produced)	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Reason for change
	Metric tons CO ₂ e					

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Tags: Modified question; OG

RATIONALE: To standardize oil and gas Scope 1 emissions intensity reporting, CDP proposes the following question, whereby emissions intensities can be reported for separate oil and gas business divisions and hydrocarbon categories.

(CC-OG5.17) Please provide Scope 1 emissions intensity associated with current production and operations

Oil and gas business division	Hydrocarbon category	Metric tons CO ₂ e per barrel of oil equivalent production or throughput	% change from previous year	Reason for change
Select from: Upstream; Downstream; Chemicals;	Select from: Crude oil / condensate; Natural gas liquids; Oil sands (includes bitumen and synthetic crude); Natural gas; Other, please specify	[Numerical field]	[% field]	[text field]

[Add row]

Tags: Modified question; OG

RATIONALE: This modification of OG7.5 (2017), has had the first column amended to reflect oil and gas business divisions rather than granular segments/activities, and has had a comment column added to provide space for an additional pertinent information to be reported.

(CC-OG5.18) Please use the following table to report your methane emissions rate

Oil and gas business division	Estimate total methane emitted expressed as % of natural gas production or throughput at given segment	Estimate total methane emitted expressed as % of total hydrocarbon production or throughput at given segment	Comment
Select from: Upstream; Downstream; Chemicals;	[% field]	[% field]	[text field]

[Add row]

Tags: Modified question; OG

RATIONALE: This modification of OG5.2 (2017) is presented to allow responders to explain methodological approaches to the reported emissions intensity (CC-OG5.17) and/or methane emissions rate (CC-OG5.18), as well providing any operational contexts to the figures provided.

(CC-OG5.19) Please clarify how emissions intensities and methane emissions rates have been derived and supply information on the methodology used where this differs from information already given in answer to the emissions methodology questions CC5.1-5.2a

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Scope 1 emissions breakdown

Tags: New question

RATIONALE: For many sectors and business activities, GHG emissions other than carbon dioxide are significant and relevant. Their contribution to overall emissions is sometimes masked by reporting in CO₂-equivalents. CDP therefore proposes this new leading question for companies to report their gross Scope 1 emissions by GHG type.

(CC5.18) **Does your organization have greenhouse gas emissions other than carbon dioxide?**

If Yes to CC5.18:

Tags: New question; IPIECA

RATIONALE: CDP proposes this new question based on existing 2017 questions CC7.3 (global warming potentials) and CC9.2c (gross Scope 1 emissions breakdown by GHG type). This provides more granularity on an organization's emissions by GHG type as well as the global warming potentials used by the reporting organization to convert into CO₂-equivalents.

(CC5.18a) **Please break down your total gross global Scope 1 emissions by greenhouse gas type, provide the used global warming potential and the source of these.**

Greenhouse gas type	Scope 1 emissions in metric tons of selected greenhouse gas	GWP Reference
Select from: CO ₂ ; CH ₄ ; N ₂ O; HFCs; PFCs; SF ₆ ; NF ₃ ; Other, please specify		

[Add row]

If Yes to CC5.18:

Tags: Modified question; IPIECA; OG; CO; EU

RATIONALE: CDP proposes this new question based on existing 2017 question OG3.3. This question supports the TCFD recommendation that energy companies should disclose the amount of gross global Scope 1 emissions from: (1) combustion, (2) flared hydrocarbons, (3) process emissions, (4) directly vented releases, and (5) fugitive emissions/leaks. The TCFD states that "Relatively significant Scope 1 emissions are expected to drive regulations (including carbon prices) that require lower emissions from products. This can result in a significant decrease in future earning capacity."

For oil and natural gas operations, CO₂ and CH₄ are typically the most significant components of GHG emissions, (N₂O can contribute to a smaller extent), for example from combustion (process heaters, engines, turbines, flares, incinerators, oxidizers, production of electricity, heat and steam, transportation of raw materials/products/waste, company owned vehicles); process emissions (process vents, equipment vents, maintenance/turnaround activities, non-routine activities; and fugitive emissions (leaks from pressurized equipment, wastewater treatment, surface impoundments).

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For coal operations, CO₂ and CH₄ are typically the most significant components of GHG emissions, for example from combustion (methane flaring and use, use of explosives, mine fires, mining equipment, transportation of coal) and fugitive emissions (CH₄ emissions from coal mines and coal piles).

For electric utility operations, CO₂ from combustion (production of electricity, heat and steam) and fugitive emissions of CH₄ (from transmissions and storage facilities) are typically the most significant components of GHG emissions, as well as HFCs (from LPG storage) and SF₆ (from transmission and distribution equipment).

(CC-OG/CC-CO/CC-EU5.18b) **Please provide masses of gross Scope 1 emissions, by GHG type, for the organization's owned/controlled operations broken down by emissions category**

Emissions category	Greenhouse gas	Gross Scope 1 emissions (metric tons of selected greenhouse gas)
Select from: Combustion (not including flaring); Flaring; Process emissions; Vented emissions; Fugitive emissions;	Select from: CO ₂ ; CH ₄ ; N ₂ O; HFCs; PFCs; SF ₆ ; NF ₃ ; Other, please specify	[Numerical field]

[Add row]

Tags: No change

(CC5.19) **Please break down your total gross global Scope 1 emissions by country/region. (CC9.1a, 2017)**

Tags: Modified question; IIGCC

RATIONALE: This question has been modified in that the Scope 1 breakdown by GHG type selection has been moved into a separate question, above. Oil & gas, Coal and Electric Utilities can elect to complete CC5.20 and CC5.20a/b/c, shown below, but are provided with sector-specific breakdowns subsequently.

(CC5.20) **Please indicate which gross global Scope 1 emissions breakdowns you are able to provide. (CC9.2, 2017)**

- By business division
- By facility
- By activity

Tags: No Change

(CC5.20a/b/c) **Please break down your total gross global Scope 1 emissions by business division/facility/activity. (CC9.2a/b/d, 2017)**

Tags: Modified question; IPIECA; OG

RATIONALE: This question is based on existing 2017 questions OG2.1/2.2 and OG3.1/3.2, and is presented because of often complex ownership and control structures present within the industry. Consolidation boundaries need to be confirmed for Scope 1 breakdowns, as different consolidation approaches can substantially alter GHG inventories.

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(CC-OG5.20) **Please confirm the consolidation basis used to report Scope 1 emissions breakdowns, providing clarification for cases in which different consolidation bases have been used**

Breakdown	Consolidation basis for reporting Scope 1 emissions by selected breakdown(s)	Comment
Multi-select from: <ul style="list-style-type: none"> • Business division <ul style="list-style-type: none"> ○ Upstream; ○ Downstream; ○ Chemicals • Activity <ul style="list-style-type: none"> ○ Exploration & production (upstream); ○ Refining; ○ Transportation and terminals; ○ Pipeline; ○ Marketing (retail); ○ Marine; ○ Petrochemicals • Other, please specify 	Select from: <ul style="list-style-type: none"> Financial control; Operational control; Equity Share; 	[Text field] <i>If different consolidation bases have been used to report different Scope 1 emissions breakdowns, please provide clarification here</i>

Tags: Modified question; IPIECA; OG

RATIONALE: This question is a modification of question OG2.3 (2017) and should be completed instead of (or in addition to) CC5.20a – business division). The oil and gas business divisions in column 1 have been sourced from IPIECA, API, OGP Petroleum industry guidelines for reporting greenhouse gas emissions (2nd edition, 2011), as well as the IPIECA Climate Change Reporting Framework (Pilot, 2016). A fourth column has been added to allow reporting of other GHG emissions, beyond CO₂ and CH₄, for example N₂O.

(CC-OG5.20a) **Please provide masses of gross global Scope 1 carbon dioxide and methane emissions in units of metric tons CO₂ and CH₄, respectively, for the organization's owned/controlled operations broken down by oil and gas oil and gas business division**

Oil and gas business division	Gross Scope 1 carbon dioxide emissions (metric tons CO ₂)	Gross Scope 1 methane emissions (metric tons CH ₄)	Gross Scope 1 emissions of other greenhouse gases (metric tons CO ₂ e)
Select from: <ul style="list-style-type: none"> Upstream; Downstream; Chemicals; Other, please specify 	[Numerical field]	[Numerical field]	[Numerical field]

Tags: Modified question; IPIECA; OG

RATIONALE: This question is a modification of question OG2.3 (2017) and should be completed instead of (or in addition to) CC5.20c - activity). The oil and gas industry activities in column 1 have been sourced from IPEICA API OGP Oil and gas industry guidance on voluntary sustainability reporting (3rd Ed. 2015). A fourth column has been added to allow reporting of other GHG emissions, beyond CO₂ and CH₄, for example N₂O.

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(CC-OG5.20b) Please provide masses of gross global Scope 1 carbon dioxide and methane emissions in units of metric tons CO₂ and CH₄, respectively, for the organization's owned/controlled operations broken down by oil and gas industry activity

Oil and gas industry activity	Gross Scope 1 carbon dioxide emissions (metric tons CO ₂)	Gross Scope 1 methane emissions (metric tons CH ₄)	Gross Scope 1 emissions of other greenhouse gases (metric tons CO ₂ e)
Select from: Exploration & production (upstream); Refining; Transportation and terminals; Pipeline; Marketing (retail); Marine; Petrochemicals; Other, please specify	[Numerical field]	[Numerical field]	[Numerical field]

Scope 2 emissions breakdown

Tags: No change

(CC5.21) Please break down your total gross global Scope 2 emissions by country/region. (CC10.1a, 2017)

Tags: No change

(CC5.22) Please indicate which gross global Scope 2 emissions breakdowns you are able to provide. (CC10.2, 2017)

- By business division
- By facility
- By activity

Tags: No change

(CC5.22a/b/c) Please break down your total gross global Scope 2 emissions by business division/facility/activity. (CC10.2a/b/c, 2017)

Additional climate-related metrics

Tags: New question

RATIONALE: CDP proposes this new question to enable reporting organizations to present relevant climate-related metrics that may indirectly or directly impact emissions or energy use.

(CC5.23) Please provide any additional climate-related metrics relevant for your business.

Description	Metric value	Metric numerator	Metric denominator (intensity metric only)	% change from previous year	Please explain
Select from: Waste; Energy usage; Land use; Other, please specify					

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1P hydrocarbon reserves and production

Tags: New questions; TCFD; OG

SECTION RATIONALE: CDP proposes two new questions on 1P liquid and gas hydrocarbon reserves and production, that are more aligned with financial reporting requirements than existing question OG1.2 (production) and OG1.3 (reserves). The TCFD states that “Transition to a low-carbon economy may affect the value of reserves or long-lived assets. Providing insight into potential future emissions can help to inform investors about the potential impacts of regulatory measures and demand changes on earning capacity.”

(CC-OG5.24) Please disclose your net liquid hydrocarbon reserves and production (total for subsidiaries and equity-accounted entities)

Hydrocarbon category	Year-end net proved reserves (1P) ^a (million barrels)	In-year net production (million barrels)
Crude oil / condensate	[Numerical field]	[Numerical field]
Natural gas liquids		
Oil sands (includes bitumen and synthetic crude)		

(CC-OG5.25) Please disclose your net gas hydrocarbon reserves and production (total for subsidiaries and equity-accounted entities)

Hydrocarbon category	Year-end net proved reserves (1P) (billion cubic feet)	In-year net production* (billion cubic feet)	For your in-year net production, please specify amount of gas consumed in operations (billion cubic feet)
Natural gas	[Numerical field]	[Numerical field]	[Numerical field]

*Please include gas consumed in operations

(CC-OG5.26) Please explain which listing requirements or other methodologies you have used to provide reserves data in CC-OG5.24 an CC-OG5.25. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this

[Text field]

Coal reserves and production

Tags: New questions; CO

SECTION RATIONALE: CDP proposes the following questions on coal reserves by coal grade and application type, respectively. Coal application type is relevant because policies to reduce carbon emissions from power generation may reduce demand for thermal relative to metallurgical coal, which is used primarily in steel-making. Coal companies can complete CC-CO5.25 to report coalbed methane reserves and production figures. The TCFD states that “Transition to a low-carbon economy may affect the value of reserves or long-lived assets. Providing insight into potential future emissions can help to

^a Proved (1P) – Reasonable certainty of being produced (90% confidence if probabilistic methods are used, hence the alternate identification term of ‘P90’).

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inform investors about the potential impacts of regulatory measures and demand changes on earning capacity.”

(CC-CO5.24) Please disclose your coal reserves and production by coal grade

Coal grade	Proven Reserves (million metric tons)	Probable Reserves (million metric tons)	Production (million metric tons)	Energy content (MJ/metric ton - LHV)	Emissions factor (grams CO ₂ e/kg)
Select from: Lignite; Sub-bituminous; Bituminous; Anthracite	[Numerical field]	[Numerical field]	[Numerical field]	[Numerical field]	[Numerical field]

[Add row]

(CC-CO5.25) Please disclose your net gas hydrocarbon reserves and production (total for subsidiaries and equity-accounted entities)

Hydrocarbon category	Year-end net proved reserves (1P) (billion cubic feet)	In-year net production* (billion cubic feet)	For your in-year net production, please specify amount of gas consumed in operations (billion cubic feet)
Natural gas	[Numerical field]	[Numerical field]	[Numerical field]

*Please include gas consumed in operations

(CC-CO5.26) Please break down your coal production by application type

Coal application	Production (%)
Select from: Thermal coal; Metallurgical coal; Other, please specify	[Numerical field]

[Add row]

(CC-CO5.27) Please explain which listing requirements or other methodologies you have used to provide reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this

[Text field]

Total hydrocarbon reserves and resource base

Tags: New questions; OG

SECTION RATIONALE: The following questions have been drafted because O&G companies are currently obligated only to report proved reserves, and robust data on probable and possible reserves as well as the wider company resource base is potentially valuable information for investors and climate analysts (as suggested in [CDP's O&G investor research report](#), 2016).

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(CC-OG5.27) Please disclose your estimated total net reserves and resource base (million boe) (total for subsidiaries and equity-accounted entities)

Estimated total net proved + probable reserves (2P) ^b (million boe)	Estimated total net proved + probable + possible reserves (3P) ^c (million boe)	Estimated net total resource base (million boe)
[Numerical field]	[Numerical field]	[Numerical field]

(CC-OG5.28) Please provide an indicative percentage split for 2P, 3P reserves and total resource base across hydrocarbon categories

Hydrocarbon category	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net Total resource base (%)
Crude oil / condensate / Natural gas liquids	[% field]	[% field]	[% field]
Natural gas			
Oil sands (includes bitumen and synthetic crude)			

(CC-OG5.29) Please provide an indicative percentage split for production, 1P, 2P, 3P reserves and total resource base across development type

Development type	In-year net production (%)	Net proved reserves (1P) (%)	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Conventional	[% field]	[% field]	[% field]	[% field]	[% field]	[Text field]
Deepwater						
Tight / Shale						
Oil sands						
Arctic						
LNG						

(CC-OG5.30) Please provide indicate the percentage of your net 1P, 2P, 3P reserves and total resource base that is classified as developed^d

Development type	Net proved reserves (1P)	Net proved + probable reserves (2P)	Net proved + probable + possible reserves (3P)	Net total resource base
% Developed:	[Numerical field]	[Numerical field]	[Numerical field]	[Numerical field]

^b 2P reserves = Proved reserves + Probable reserves (often referred to as P50). Probable reserves are additional reserves less certain to be recovered, and in sum with proved reserves there is a 50% chance that actual quantities produced will equal or exceed this estimate.

^c 3P = Proved reserves + Probable reserves + Possible reserves. Possible reserves are less certain than probable. There is a 10% chance that actual quantities produced will equal or exceed 3P (hence the term P10).

^d Reserves are also sub-categorized as developed or undeveloped. Developed reserves are expected to be recovered through existing wells and infrastructure, whereas undeveloped reserves require significant capital expenditure to be extracted, i.e. further drilling operations.

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Refinery throughput and products

Tags: New questions; OG

SECTION RATIONALE: CDP proposes new questions for the oil refinery segment, to characterise company's activity in this segment and provide activity data for comparability.

(CC-OG5.31) **Please disclose your total refinery throughput capacity in million barrels/day**

[Numerical field]

(CC-OG5.32) **Please disclose your feedstocks^e processed and throughput in million barrels**

Feedstock processed	Throughput (Million barrels)
Select from: Oil; Other feedstocks	[Numerical field]

[Add row]

(CC-OG5.33) **Please disclose your refinery products and net production**

Product produced	Refinery net production (Million barrels) *not including products used/consumed on site
Select from: Liquified petroleum gas (LPG); Gasoline; Naphtha; Kerosene and related jet aircraft fuels; Diesel fuel; Fuel oils; Lubricating oils; Paraffin wax; Asphalt and tar; Petroleum coke	[Numerical field]

[Add row]

Hydrocarbon and coal transportation accounting

Tags: New questions; OG; CO

SECTION RATIONALE: CDP proposes new questions for the hydrocarbon and coal transport segments, to characterise company's activity in these segments and provide activity data for comparability.

(CC-OG5.34) **Please disclose your hydrocarbon transportation in metric ton-kilometres, by transport mode**

Transport mode	Crude: metric ton-kilometres	Natural Gas: metric ton-kilometres	Refined products: metric ton-kilometres
Pipeline	[Numerical field]	[Numerical field]	[Numerical field]
Tanker			
Truck			
Other			

^e A refinery feedstock is product or a combination of products derived from crude oil and destined for further processing other than blending in the refining industry. It is transformed into one or more components and/or finished products ([OECD](#))

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(CC-CO5.34) Please disclose your coal transportation in metric ton-kilometres, by transport mode

Transport mode	Coal: metric ton-kilometres
Train	[Numerical field]
Ship/Barge	
Slurry pipeline	
Other	

Capital flexibility

Tags: New questions; TCFD; OG

RATIONALE: The TCFD states that the “Impacts of climate change are subject to uncertainty in terms of extent and timing. Understanding the allocation to long- versus short-lived assets informs the potential of an organization to adapt to emerging climate-related risks and opportunities.” CDP therefore proposes the following question for O&G companies, to understand the proportion of company capex which is discretionary and committed, and inform on capital flexibility.

(CC-OG5.35) Please disclose the percentage of your total planned CAPEX over the next 5 and 10 years that is discretionary and committed

CAPEX status	Percentage of total planned CAPEX spend over next 5 years	Percentage of total planned CAPEX spend over next 10 years
Discretionary	[% field]	[% field]
Committed		

CAPEX for power generation, products and services

Tags: New questions; TCFD; IIGCC; EU

SECTION RATIONALE: CDP proposes the following questions to understand electric utilities capital allocation towards new power generation capacity by primary power generation source, as well as capital allocation towards new and developing low-carbon energy products and services. This question also enables disclosure in line with the IIGCC investor expectations and questions for electric utilities on the evolution of the company’s generation mix, products and services. The TCFD notes that “Expenditures for new technologies are needed to manage transition risk. The level of expenditures provides an indication of the level to which future earning capacity of core business might be affected.”

(CC-EU5.36) Please break down your total planned CAPEX in your current CAPEX plan for power generation by source

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Select from: Coal – hard; Lignite; Oil; Gas; Biomass; Waste (non-biomass); Nuclear; Geothermal; Hydroelectric;	[Numerical field]	[Numerical field]	[Date field]	[Text field]

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Wind; Solar; Other renewable				
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[Add row]

(CC-EU5.37) Please break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.)

Products and services	Description of product/service	CAPEX planned for this product/service	Percentage of total CAPEX planned for products and services	End year of CAPEX plan
Select from: Distributed generation; Home storage systems; Smart appliances; Home systems; Prosumer services; Information campaigns; Audits; Tariff measures; Energy audits; Energy management services; Electric vehicles; Charging networks; Heating systems; HVAC; CHP; Lighting; Smart grid; Micro-grid; Large-scale storage; Other, please specify	[Text field]	[Numerical field]	[Percentage field]	[Date field]

[Add row]

O&G costs

Tags: New questions; TCFD; IIGCC; OG

SECTION RATIONALE: CDP proposes the following questions on O&G cost accounting, as the TCFD states that “Cost of supply is important because in a market with falling demand, low-cost products will continue to be brought to market. Understanding the cost of supply informs investors about portfolio vulnerability and thus earning capacity.” Exploration and production costs point towards the flexibility of a company’s financial position, which is increasingly important under the current environment of low oil prices and potential future shifts in supply/demand dynamics under low oil price scenarios. These questions also support disclosure in line with the IIGCC’s investor expectations and questions on oil & gas demand and price dynamics.

(CC-OG5.38) Please disclose exploration, development and production costs for the reporting year

Production (lifting) costs (\$ million)	Exploration and appraisal costs (\$ million)	Development costs (\$ million)	Comment
[Numerical field]	[Numerical field]	[Numerical field]	[Text field]

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(CC-OG5.39) **Please disclose average production (lifting) costs per barrel of oil equivalent (\$/boe) for the company:**

[Numerical field]

(CC-OG5.40) **For the reporting year please disclose the breakeven price (\$/boe) required for cash neutrality, i.e. where cash flow from operations covers capex.**

[Numerical field]

(CC-OG5.41) **For the reporting year please disclose the breakeven refining margin (\$/barrel) for the company.**

[Numerical field]

Low-carbon investments

Tags: New question; TCFD; IIGCC; IPIECA; OG; CO

RATIONALE: The TCFD proposes energy company disclosure on investment in low-carbon alternatives (e.g., R&D, equipment, products, or services), stating that “Investments in new technologies are needed to manage transition risk. The level of investment provides an indication of the level to which future earning capacity of core business might be affected.”

(CC-OG/CC-CO5.42) **Please disclose your investments in low-carbon research and development (R&D), equipment, products and services.**

Reporting period	Investment area	Low-carbon investment (in local currency)	Percentage of total investment	Description
Enter a 1-year period (can be a past year; the current reporting year; or a future year)	Select from: R&D; Equipment; Products; Services	[Numerical field]	[Percentage field]	[Text field]

[Add row]

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CC6. Carbon pricing & trading

Carbon price

Tags: No change; IIGCC

(CC6.1) Does your company use an internal price on carbon? (CC2.2c, 2017)

- Yes
- No, but we anticipate doing so in the next 2 years
- No, and we don't anticipate doing so in the next 2 years

If Yes to CC6.1:

Tags: Modified question; IIGCC

RATIONALE: CDP proposes to change CC2.2d (2017) from an open-ended text box question to a table question, with columns eliciting details of how the reporting organization uses an internal carbon price. This question also enables disclosure in line with the IIGCC's investor expectations and questions on carbon pricing.

(CC6.1a) Please provide details of how your company uses an internal price on carbon.

Objective for implementing an internal carbon price	Type of internal carbon price	GHG Scope	Application	Actual price(s) used	Explain variance of price(s) used	Impact	Comment
Select from: Navigate GHG regulations; Stakeholder expectations; Change internal behavior; Drive energy efficiency; Drive low-carbon investment; Stress test investments	Select from: Shadow price; Internal fee; Internal trading; Implicit price.		Corporate structure that price is applied to (i.e. business units, corporate divisions, facilities)	Currency /metric ton	Text box. (i.e. by time or region, or by the way it is used across the business or in specific business units or corporate divisions)	Example of how carbon pricing has affected your business i.e. business strategy, risk assessment or evaluation, emissions reduction, investment decisions.	

Carbon pricing system

Tags: New question

RATIONALE: Evolving section CC13 'Emissions Trading' (2017), CDP proposes to change the title of this section to "Carbon Pricing System" and ask about compliance to carbon pricing regulation more generally; therefore, encompassing carbon tax schemes in addition to carbon markets and asking for mandatory compliance as opposed to just voluntary participation. Therefore, CDP proposes this new leading question to ask about compliance to general carbon pricing regulations.

(CC6.2) Are any of your operations or activities regulated by a carbon pricing scheme (i.e. ETS, Cap & Trade or Carbon Tax)?

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Select from:

- Yes
- No, but we anticipate being regulated in the next 5 years
- No, and we do not anticipate being regulated in the next 5 years

If Yes to CC6.2:

Tags: New question

RATIONALE: CDP proposes this follow-up question for respondents to select carbon pricing regulations in which they are compliant.

(CC6.2a) **Please select the legislation(s) in which you are compliant.**

Multi-select from a list of carbon pricing regulations taken from the [World Bank's State and Trends of Carbon Pricing](#) report

If a company selects an emissions trading scheme in the question above they will be presented with existing questions taken from section CC13 (2017):

Tags: No Change

(CC6.2b) **Please complete the following table for each of the emissions trading schemes in which you participate (CC13.1a, 2017)**

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tons CO ₂ e	Details of ownership

Tags: No change

(CC6.2c) **What is your strategy for complying with the schemes in which you participate or anticipate participating? (CC13.1b, 2017)**

Tags: No change

(CC6.2d) **Has your organization originated any project-based carbon credits or purchased any within the reporting period? (CC13.2, 2017)**

If Yes to CC6.2d:

Tags: No change

(CC6.2e) **Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period. (CC13.2a, 2017)**

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tons CO ₂ e)	Number of credits (metric tons CO ₂ e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance

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CC7. Engagement

Value chain engagement

Tags: No change

(CC7.1) Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (CC14.4, 2017)

Tick all that apply

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain
- No, we do not engage

If, in response to CC7.1, 'Yes, our suppliers':

Tags: Modified question

RATIONALE: CDP has modified CC14.4b (2017) to gather more specific information on the methods that organizations use to engage their supply chain. The table now includes a hierarchy of engagement types and some additional columns (% Scope 3 emissions as reported in CC5.13, rationale for the target audience selection and scope of engagement), which provide more information about the implementation and success of the engagement activities.

(CC7.1a) Please give details of methods of engagement and measures of success in engaging with your suppliers.

Type of engagement	Details of engagement	Number of suppliers	% total spend (direct and indirect)	% Scope 3 emissions as reported in CC5.13	Please explain the rationale for the target audience selection and scope of engagement.	Impact of engagement, including measures of success
Select from: Compliance & onboarding; Information collection; Engagement & incentivization; Innovation & collaboration; Other, please explain						

[Add row]

If, in response to CC7.1, 'Yes, our customers':

Tags: New question

RATIONALE: CDP has added this question to align the question on customer engagement with that of supply chain engagement. It features a similar table, though it is based on its own hierarchy of engagement categories, and the level of detail is more heterogeneous, allowing disclosers to report their own metrics for the size and impact of their customer engagement.

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(CC7.1b) Please give details of methods of engagement and measures of success in engaging with your customers.

Engagement Category	Engagement type	Size of engagement	% Scope 3 emissions as reported in CC5.13	Please explain the rationale for the target audience selection and scope of engagement.	Impact of engagement, including measures of success
Select from: Education; Collaboration; Motivation; Compensation; Regulation; Other, please explain					

[Add row]

If, in response to CC7.1, 'Yes, other partners in the value chain':

Tags: No change

(CC7.1c) Please give details of methods of engagement and measures of success in engaging with other partners in the value chain. (CC14.4a, 2017)

If, in response to CC7.1, 'No, we do not engage':

Tags: No change

(CC7.1d) Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future (CC14.4c, 2017)

Policy engagement & lobbying

Tags: No change; IIGCC; IPIECA

(CC7.2) Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (CC2.3, 2017)

Tick all that apply:

- Direct engagement with policy makers
- Trade associations
- Funding research organizations
- Other
- No

Tags: No change; IIGCC

(CC7.2a) On what issues have you been engaging directly with policy makers? (CC2.3a, 2017)

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution

Tags: No change; IIGCC; IPIECA

(CC7.2b) Are you on the board of any trade associations or do you provide funding beyond membership? (CC2.3b, 2017) (Yes or No)

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Tags: No change; IIGCC; IPIECA

(CC7.2c) **Please enter the details of those trade associations that are likely to take a position on climate change legislation. (CC2.3c, 2017)**

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?

Tags: No change

(CC7.2d) **Do you publicly disclose a list of all research organizations that you fund? (CC2.3d, 2017) (Yes or No)**

Tags: No change; IPIECA

(CC7.2e) **Please provide details of the other engagement activities that you undertake. (CC2.3e, 2017)**

Tags: No change; IIGCC; IPIECA

(CC7.2f) **What processes do you have in place to ensure that all your direct and indirect activities that influence policy are consistent with your overall climate change strategy? (CC2.3f, 2017)**

Tags: No change

(CC7.2g) **Please explain why you do not engage with policy makers. (CC2.3g, 2017)**

Communications

Tags: No change; IIGCC

(CC7.3) **Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s). (CC4.1, 2017)**

Publication	Status	Attach the document	Content elements	In accordance with TCFD recommendations	In line with CDSB framework

[Add row]

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CC8. Sign off

Sign off

Tags: No change; SME

(CC8.1) Please provide the following information for the person that has signed off (approved) your CDP climate change response. (CC15.1, 2017)

Name	Job title	Corresponding job category