

Oil and Gas

Introduction to the module

These questions are designed to apply to organizations operating in the oil and gas (O&G) industry. They are based on a reporting framework devised by the Institutional Investors Group on Climate Change (IIGCC), Ceres, and the Investor Group on Climate Change Australia/New Zealand (IGCC). They have continually been reviewed and amended through extensive consultation with oil and gas industry representatives, investors and other stakeholders including NGOs.

Organizations with business activities additional to the exploration, production, refining and processing, storage, transportation, distribution and marketing of oil and gas products should answer the 2017 core climate change questionnaire, including emissions from other business activities. The 2017 core climate change questionnaire contains a number of questions that are of particular relevance for O&G companies:

- Questions in section CC2 on climate change risk management approach, business strategy integration of climate change, internal price of carbon usage and engagement with policy makers
- Questions in section CC3 on emission reduction targets
- Questions in section CC5 on climate change risks
- Questions CC8.2 and CC8.3a on gross global Scope 1 and 2 emissions, respectively, and CC8.4 on emissions exclusions
- Questions CC9.1a and CC9.2c on Scope 1 emissions breakdown by country/region and GHG type, respectively
- Questions in section CC12 on emissions history and performance
- Question CC14.1 on Scope 3 emissions, specifically from the 'use of sold products' category

O&G companies are encouraged to respond fully to these questions within the core climate change questionnaire, while making reference to the specific activities and topics that are covered in this O&G sector module where appropriate.

The following O&G sector module questions only require answers to be given for the oil and gas division(s) of the reporting entity. In answering the questions, the reporting boundary/consolidation approach used for the main information request should be adopted as far as possible for these supplementary questions. In cases in which information is reported on a consolidation basis which is different from other information provided, that fact should be made clear for investors. Confirmation of the consolidation basis is requested for individual supplementary questions as it is recognized that reporting organizations may in practice adopt a variety of approaches in view, for example, of joint ventures and complex operational arrangements.

Oil and Gas

Some of these questions may not be relevant to every organization in the O&G industry. Please answer those that are and explain if a question is not relevant in the 'Further Information' field that appears at the end of every webpage within the Online Response System.

Please see the O&G sector module guidance for definitions and their sources of hydrocarbon types, value chain segments, etc. and how to answer the questions in the following sections of the O&G sector module:

- OG0 Reference information**
- OG1 Production, reserves and sales by hydrocarbon type**
- OG2 Emissions by segment in the O&G value chain**
- OG3 Scope 1 emissions by emissions category**
- OG4 Transfers & sequestration of CO₂ emissions**
- OG5 Emissions intensity**
- OG6 Development strategy**
- OG7 Methane from the natural gas value chain**

Please note that the oil and gas sector module is not scored as part of the general CDP 2017 climate change scoring methodology. In 2017, oil and gas companies will continue to be scored publicly according to the general CDP climate change scoring methodology as in previous years.

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Oil and Gas

OG0 Reference information

OG0.1 Please identify the significant petroleum industry components of your business within your reporting boundary (select all that apply)

- Exploration, production & gas processing
- Storage, transportation & distribution
- Specialty operations
- Refining
- Retail & marketing

OG1 Production, reserves and sales by hydrocarbon type

OG1.1 Is your organization involved with oil & gas production or reserves?

If "Yes":

OG1.2 Please provide values for annual gross and net production by hydrocarbon type (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization **(CDP 2016 OG1.2, amended)**

Product	Gross production (BOE)	Net production (BOE)	Production consolidation boundary	Comment

OG1.3 Please provide values for reserves by hydrocarbon type (in units of BOE) for the reporting year. Please indicate if the figures are for reserves that are proved, probable or both proved and probable. The values required are aggregate values for the reporting organization

Product	Country/region	Reserves (BOE)	Date of assessment	Proved/Probable/Proved+Probable

OG1.4 Please explain which listing requirements or other methodologies you have used to provide reserves data in OG1.3. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this

Oil and Gas

OG1.5 Please provide values for annual sales of hydrocarbon types (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization **(CDP 2016 OG5.1, amended)**

Product	Sales (BOE)	Comment

OG1.6 Please provide the average breakeven cost of current production used in estimation of proven reserves **(CDP 2016 OG1.5)**

Hydrocarbon/project	Breakeven cost/BOE	Comment

OG1.7 In your economic assessment of hydrocarbon reserves, resources or assets, do you conduct scenario analysis and/or portfolio stress testing consistent with a low-carbon energy transition? **(CDP 2016 OG1.6, amended)**

- Yes, compatible with RCP 2.6
 Yes, compatible with IEA 450
 Yes, compatible with IEA 2DS
 Yes, compatible with IEA Bridge Scenario
 Yes, other
 No

If any "Yes" option is selected:

OG1.7a Please describe your scenario analysis and/or portfolio stress testing, the inputs used and the implications for your capital expenditure plans and investment decisions **(CDP 2016 OG1.6a)**

If "No" is selected:

OG1.7b Please explain why you have not conducted any scenario analysis and/or portfolio stress testing consistent with a low-carbon energy transition **(CDP 2016 OG1.6b)**

Oil and Gas

OG2 Emissions by segment in the O&G value chain

OG2.1 Please indicate the consolidation basis (financial control, operational control, equity share) used to report the Scope 1 and Scope 2 emissions by segment in the O&G value chain. Further information can be provided in the text box in OG2.2

Segment	Consolidation basis for reporting Scope 1 emissions	Consolidation basis for reporting Scope 2 emissions

OG2.2 Please provide clarification for cases in which different consolidation bases have been used and the level/focus of disclosure. For example, a reporting organization whose business is solely in storage, transportation and distribution (STD) may use the text box to explain why only the STD row has been completed

OG2.3 Please provide masses of gross Scope 1 carbon dioxide and methane emissions in units of metric tonnes CO₂ and CH₄, respectively, for the organization's owned/controlled operations broken down by value chain segment

Segment	Gross Scope 1 carbon dioxide emissions (metric tonnes CO ₂)	Gross Scope 1 methane emissions (metric tonnes CH ₄)

OG2.4 Please provide masses of gross Scope 2 GHG emissions in units of metric tonnes CO₂e for the organization's owned/controlled operations broken down by value chain segment

Segment	Gross Scope 2 emissions (metric tonnes CO ₂ e)	Comment

Oil and Gas

OG3 Scope 1 emissions by emissions category

OG3.1 Please confirm the consolidation basis (financial control, operational control, equity share) used to report Scope 1 emissions by emissions category

Segment	Consolidation basis for reporting Scope 1 emissions by emissions category

OG3.2 Please provide clarification for cases in which different consolidation bases have been used to report by emissions categories (combustion, flaring, process emissions, vented emissions, fugitive emissions) in the various segments

OG3.3 Please provide masses of gross Scope 1 carbon dioxide and methane emissions released into the atmosphere in units of metric tonnes CO₂ and CH₄, respectively, for the whole organization broken down by emissions category

Emissions category	Gross Scope 1 carbon dioxide emissions (metric tonnes CO ₂)	Gross Scope 1 methane emissions (metric tonnes CH ₄)
Combustion		
Flaring		
Process emissions		
Vented emissions		
Fugitive emissions		

OG3.4 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

Oil and Gas

OG4 Transfers & sequestration of CO₂ emissions

OG4.1 Is your organization involved in the transfer or sequestration of CO₂?

If "Yes":

OG4.2 Please indicate the consolidation basis (financial control, operational control, equity share) used to report transfers and sequestration of CO₂ emissions

Activity	Consolidation basis
Transfers	
Sequestration of CO ₂ emissions	

OG4.3 Please provide clarification for cases in which different consolidation bases have been used (e.g. for a given activity, capture, injection or storage pathway)

OG4.4 Using the units of metric tonnes of CO₂, please provide gross masses of CO₂ transferred in and out of the reporting organization (as defined by the consolidation basis). Please note that questions of ownership of the CO₂ are addressed in OG4.6

Transfer direction	CO ₂ transferred – Reporting year
CO ₂ transferred in	
CO ₂ transferred out	

OG4.5 Please provide clarification on whether any oil reservoirs and/or sequestration system (geological or oceanic) have been included within the organizational boundary of the reporting organization. Provide details, including degrees to which reservoirs are shared with other entities **(CDP 2016 OG4.5, amended)**

OG4.6 Please explain who (e.g. the reporting organization) owns the transferred emissions and what potential liabilities are attached. In the case of sequestered emissions, please clarify whether the reporting organization or one or more third parties owns the sequestered emissions and who has potential liability for them

Oil and Gas

OG4.7 Please provide masses in metric tonnes of gross CO₂ captured for purposes of carbon capture and sequestration (CCS) during the reporting year according to capture pathway. For each pathway, please provide a breakdown of the percentage of the gross captured CO₂ that was transferred into the reporting organization and the percentage that was transferred out of the organization (to be stored)

Capture pathway in CCS	Captured CO ₂ (metric tonnes CO ₂)	Percentage transferred in	Percentage transferred out

OG4.8 Please provide masses in metric tonnes of gross CO₂ injected and stored for purposes of CCS during the reporting year according to injection and storage pathway

Injection and storage pathway	Injected CO ₂ (metric tonnes CO ₂)	Percentage of injected CO ₂ intended for long-term (>100 year) storage	Year in which injection began	Cumulative CO ₂ injected and stored (metric tonnes CO ₂)

OG4.9 Please provide details of risk management performed by the reporting organization and/or third party in relation to its CCS activities. This should cover pre-operational evaluation of the storage (e.g. site characterization), operational monitoring, closure monitoring, remediation for CO₂ leakage, and results of third party verification

Oil and Gas

OG5 Emissions intensity

OG5.1 Please provide estimated emissions intensities (Scope 1 + Scope 2) associated with current production and operations **(CDP 2016 OG5.2)**

Year ending	Segment	Hydrocarbon/product	Emissions intensity (metric tonnes CO ₂ e per thousand BOE)	% change from previous year	Direction of change from previous year	Reason for change

OG5.2 Please clarify how each of the emissions intensities has been derived and supply information on the methodology used where this differs from information already given in answer to the methodology questions in the main information request **(CDP 2016 OG5.3)**

OG6 Development strategy

OG6.1 For each relevant strategic development area, please provide financial information for the reporting year

Strategic development area	Describe how this relates to your business strategy	Sales generated	EBITDA	Net assets	CAPEX	OPEX	Comment

OG6.2 Please describe your future capital expenditure plans for different strategic development areas

Strategic development area	CAPEX	Total return expected from CAPEX investments	Comment

OG6.3 Please describe your current expenses in research and development (R&D) and future R&D expenditure plans for different strategic development areas

Strategic development area	R&D expenses – Reporting year	R&D expenses – Future plans	Comment

Oil and Gas

OG7 Methane from the natural gas value chain

OG7.1 Please indicate the consolidation basis (financial control, operational control, equity share) used to prepare data to answer the questions in OG7

Segment	Consolidation basis

OG7.2 Please provide clarification for cases in which different consolidation bases have been used

OG7.3 Does your organization conduct leak detection and repair (LDAR), or use other methods to find and fix fugitive methane emissions?

If "Yes":

OG7.3a 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

If "No":

OG7.3b Please explain why not and whether you plan on conducting leak detection and repair, or other methods to find and fix fugitive methane emissions

OG7.4 Please indicate the proportion of your organization's methane emissions inventory estimated using the following methodologies (+/- 5%)

Methodology	Proportion of total methane emissions estimated with methodology	What area of your operations does this answer relate to?
Direct detection and measurement		
Engineering calculations		
Source-specific emission factors (IPCC Tier 3)		
IPCC Tier 1 and/or Tier 2 emission factors		

Oil and Gas

OG7.5 Please use the following table to report your methane emissions rate

Year ending	Segment	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

OG7.6 Does your organization participate in voluntary methane emissions reduction programs?

If "Yes":

OG7.6a Please describe your organization's participation in voluntary methane emissions reduction programs

OG7.7 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 CC3? **(CDP 2016 OG7.7, amended)**

If "Yes, a methane-specific emissions reduction target":

OG7.7a 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) **(New for CDP 2017)**

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

OG7.7b 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 **(CDP 2016 OG7.7a, amended)**

If "No":

OG7.7c 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 **(CDP 2016 OG7.7b, amended)**