ipieca

energy **API**

IOGP International Association of Oil & Gas Producers

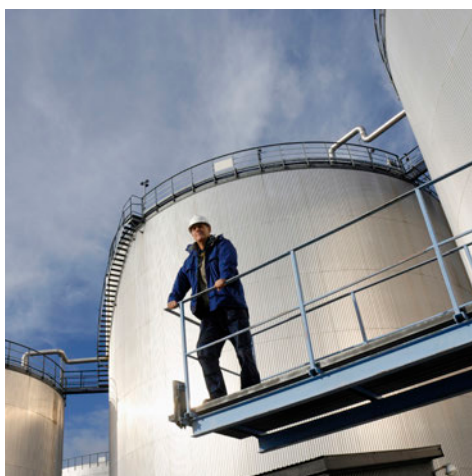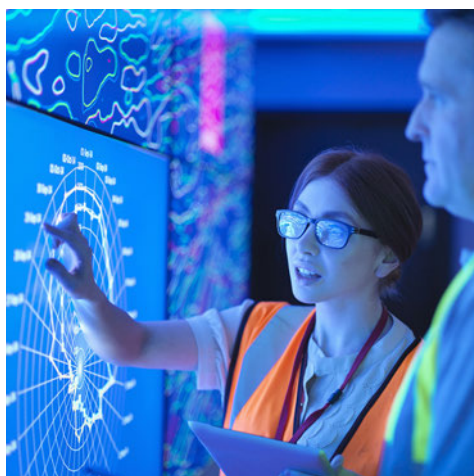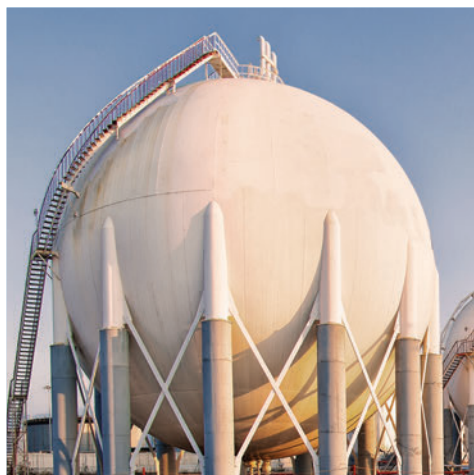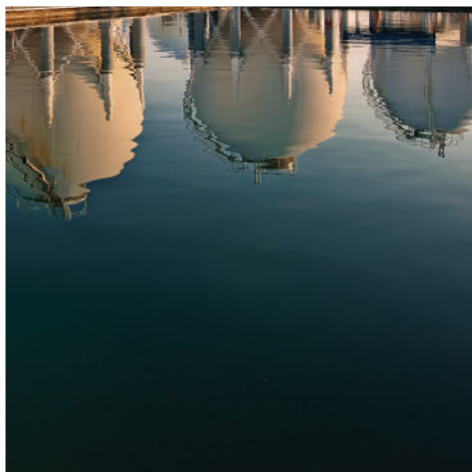# Sustainability reporting guidance for the oil and gas industry
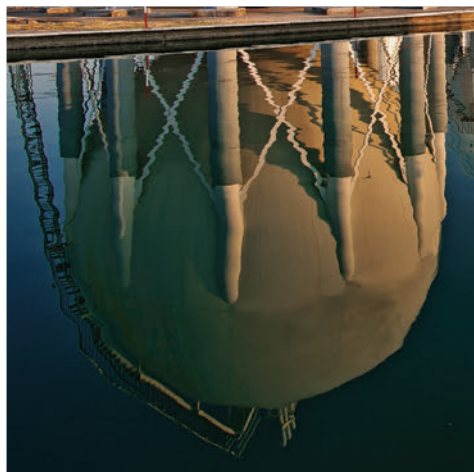
4th edition
2020

Advancing environmental and social performance across oil and gas

www.ipieca.org

Legal note

This voluntary guidance document (Guidance) is designed to serve as a resource for interested companies; the indicators and information referenced in this work do not establish an industry standard as to the nature of a company's public reporting practice. The recommendations in this Guidance on how to report on a particular issue are addressed to those companies who choose to voluntarily include that issue in their sustainability reporting and terms such as 'the reporting company should ...' are to be understood in this sense .

The terms and definitions used in this document are not necessarily the same as terms and definitions used in various statutes, rules, codes or other legal documents. Users and readers of this document should refer to relevant legal sources or consult their own legal counsel for explanations as to how the terms and definitions used in this document may differ from the legal terms and definitions (e.g. spills and hazardous wastes) used in their particular areas of operation. Anything in this document regarding voluntary reporting of indicators is not intended to imply that any of the indicators are required to be reported under any national, local or other law. Furthermore, it is not intended to serve as a substitute for applicable public reporting requirements and regulations. Any company reporter that has a question as to whether or not reports that follow the information contained herein will meet any specific reporting requirements applicable to their particular operations should consult with the reporter's own legal counsel.

A cautionary statement regarding performance indicators

Aggregated, company-level, non-financial performance data, developed using the indicators in this Guidance, can be informative for comparing relative performance among different companies, such as benchmarking safety incident statistics across the oil and gas industry. A company can use such comparisons to evaluate its own performance relative to peers, and identify areas for potential improvement. However, limitations to comparability exist due to various factors including the different methods companies may use to measure, normalize and report specific indicators. Although efforts have been made throughout the Guidance to improve comparability, report users are advised to exercise caution when using data from sustainability reports to compare performance. For example, comparing two companies that report greenhouse gas emissions on a different basis (e.g. equity share vs. operated) could be misleading regarding actual performance. Specific indicators from similar operations can sometimes be usefully compared to help performance management. However, the company-level, aggregate data typically reported in sustainability reports may not provide adequate comparability for some metrics. Where this Guidance mentions comparability, it is not intended to imply that data in sustainability reports, and therefore companies' performance, are always directly comparable.

Furthermore and separate from company sustainability reporting, industry associations and others may choose to implement specific performance benchmarking studies, which may build upon the indicators in this Guidance.

Sustainability reporting guidance for the oil and gas industry

4th edition, 2020

ipieca Advancing environmental
and social performance
across oil and gas

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energy**API**

www.api.org

IOGP International
Association
of Oil & Gas
Producers

www.iogp.org

Endorsing associations

OGCI

OGCI welcomes the joint efforts to update and continue to standardise sustainability reporting guidelines, helping to provide a consistent foundation of metrics for the oil and gas industry as it works to respond to the climate challenge. OGCI will build on these recommendations as we continue to improve our aggregated reporting and enhance transparency of our members´ strategy, performance and ambitions through third party review of our data.

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A foreword from the oil and gas industry associations

Brian
Sullivan
*IPIECA
Executive
Director*

Mike
Sommers
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President
and CEO*

Gordon
Ballard
*IOGP
Executive
Director*

We are proud to introduce the fourth edition of our *Sustainability reporting guidance for the oil and gas industry* (the 'Guidance').

Member companies of IPIECA, the global oil and gas industry association for advancing environmental and social issues, the American Petroleum Institute (API), and the International Association of Oil & Gas Producers (IOGP) have been collaborating on this important Guidance since 2005. Much has changed since our last update of this Guidance in 2015.

Energy and climate

We recognise that society is expecting rapid solutions to the challenges we face, especially our industry's role in reducing greenhouse gas emissions. Access to affordable, reliable energy is essential to fuel economies and improve living conditions globally. At the same time, providing such access comes with the momentous challenge of reducing the risks of climate change.

Our industry is committed to being part of the solution. One of the most relevant contributions of the oil and gas industry is providing affordable, reliable, sustainable and modern energy. We believe it is our responsibility to deliver solutions to future lower carbon energy systems and to reduce greenhouse gas emissions.

We understand that the energy system will change. Launching the fourth edition of the Guidance is evidence of our member companies´ commitment to reporting and transparency about how they manage climate-related and broader sustainability-related opportunities, impacts, and risks.

Contributing to sustainable development

The energy transition fits into a broader picture of sustainable development, which addresses all the most urgent economic, social, and environmental challenges of this generation. These are reflected through the 17

Sustainable Development Goals (SDGs), agreed by all countries, for overcoming poverty while protecting the planet and ensuring that all people enjoy peace and prosperity by 2030.

Our industry continues to collaborate with stakeholders – including governments, non-governmental organizations (NGOs), and investors – on many topics included in the SDGs. Our member companies often work through our organizations to update frameworks such as this Guidance to provide practical support for reporting of our industry's contribution to the SDGs.

> We understand that the energy system will change.

Driving transparency and consistency

This fourth edition marks over fifteen years of collaboration between the member companies across our three associations around the most relevant sustainability issues and indicators to report on. IPIECA, API, and IOGP believe that it is essential to continue providing this robust industry-developed framework to help companies shape the structure and content of their sustainability reporting, particularly for companies that are just starting to report.

Society´s expectations are evolving. Recent years have been characterised by a growing interest in sustainable investment, including greater focus on the risks and opportunities driven by the potential acceleration to a lower-carbon future. Companies need to manage both the transition to a lower carbon economy and the physical risk of a changing climate, and these twin challenges are increasingly of interest to investors and lenders. Sustainability reports are a key enabler

to provide decision-useful information and can help to foster understanding and collaboration with a wide range of stakeholders. Our Guidance supports understanding and collaboration by encouraging reporters to keep their stakeholders informed about their governance, strategies, risk and opportunity management, and performance.

This revision of the Guidance represents consensus from our members on the sustainability issues relevant to our industry and aims to encourage consistency and continuous improvement in reporting. The industry's commitment to this project is evidenced through the substantial participation in the update, as noted in the acknowledgements on page xi.

External engagement

This fourth edition also reflects feedback from stakeholders beyond our industry. We received this feedback through a public consultation process. We engaged an independent external stakeholder panel, comprised of leading environmental, social and financial experts, to advise us on the process and content of the Guidance. The panel included leaders from banks and investors reflecting the increasing focus on sustainable finance and the keen interest in reporting from this community. We also looked for balance across subject matter expertise, experience, and geography. The stakeholder panel engagement for the 2020 Guidance brought different perspectives to the table and contributed to many of the significant updates.

Looking ahead

The companies in our industry are well aware of society's expectations and the many opportunities and challenges that the future holds. Navigating these successfully is in each company´s interest. Demonstrating resilience through robust reporting and communication is key going forward.

Launching the fourth edition of the Guidance is only one milestone of this journey without a finishing line. We anticipate updating certain sections of this Guidance on a frequent basis in order to respond to an evolving business and reporting landscape.

IPIECA, API, and IOGP also aim to strengthen the relevance of this Guidance to serve not only as a practical tool for reporting but also to enable and enhance engagement with stakeholders across society as we collaboratively navigate the energy transition.

KEY CHANGES FOR THE 2020 UPDATE

- A new modular structure enabling faster updates to reflect industry progress on specific topics or important external developments.

- Creation of new 'key points to address' that give practical recommendations on developing a report's narrative. For example, to address new reporting frameworks (such as the UN Sustainable Development Goals), or legislative change (such as modern slavery requirements in some jurisdictions), or increased investor focus on Environment, Social and Governance (ESG) topics.

- Coverage of 21 sustainability issue areas supported by 43 performance indicators — compared to 12 issues and 34 indicators in the 2015 Guidance.

- Each indicator has been updated with two revised tiers of reporting elements, 'Core' and 'Additional'. The Guidance retains 52 elements previously categorized at the Common level, while elevating or adding 72 elements to the new Core level that reflect the extensive range of current sustainability issues that are typically material for all companies to report. A further 194 Additional elements have increased the total number of reporting elements by more than 50% for this update, encouraging companies to improve the breadth and transparency of their reporting.

- As well as new indicators covering governance and strategy, risks and opportunities, lower-carbon technology and methane, the major revisions within the Climate change and energy module incorporate the most recent IPIECA climate change reporting framework and has been informed by the recommendations of the investor driven Task Force on Climate-related Financial Disclosures (TCFD).

- A new module on Governance incorporates guidance on business ethics, to complement the other modules.

A joint statement from the independent stakeholder panel

Elizabeth Wild, Independent (Chair) | Marielle Canter Weikel, Conservation International | Carlota Garcia-Manas, Church Of England | Judy Kuszewski, Sancroft | Vanessa Zimmerman, Pillar Two | Bettina Reinboth, PRI | Danielle Sugarman, Blackrock | Matt Arnold, JP Morgan Chase | Olivia White, Independent

As part of the Guidance update process, the IPIECA Reporting Working Group (RWG) convened a panel of independent experts in sustainability reporting practices relating to the energy industry, as had been done for the 2010 and 2015 editions. As knowledgeable members of the reporting community, the panel represents the views of typical report reader groups: investors; business and industry bodies; environmental and community-oriented NGOs; and multilateral institutions.

The panel's role was to help ensure that the updated Guidance adequately captures the key sustainability reporting challenges facing the sector and its stakeholders. By providing challenge and comment that informed the content of the Guidance, the panel helped to ensure that the Guidance offers the best possible support for reporting organisations in delivering transparent, balanced and useful sustainability data and information.

The following is the joint statement from the Independent Stakeholder Panel.

As part of the development process for the fourth edition of this *Sustainability reporting guidance for the oil and gas industry* (the Guidance), IPIECA's Reporting Working Group convened an 'Independent Stakeholder Panel' (the Panel) of external specialists to comment on successive drafts and provide insights about how external expectations of the oil and gas industry's sustainability reporting are evolving.

The Panel members have expertise in investment banking and financial services, corporate transparency and sustainability reporting, law, environment and conservation, climate change, business and human rights, analysis of ESG (environmental, social and governance) performance in multinationals, corporate risk analysis, and the development of international corporate responsibility and reporting standards. The Panel members have held and hold leading roles in a range of organisations, including oil, gas and mining companies, investment banks, non-profit organisations, sustainability consultancies, government policy teams and universities.

Shortly after the Panel's creation in March 2019, several members joined a face-to-face dialogue on sustainability reporting with representatives of IPIECA

member companies. The Panel subsequently provided written comments on both the first and second drafts of this Guidance. Panel members also met with IPIECA's Reporting Working Group for a detailed discussion about the content of the Guidance.

Changes to external reporting frameworks, increasing public expectations and tightening legislation, combined with oil and gas companies' wish to continue improving their sustainability reporting, have all influenced the revised content of the Guidance. The Panel acknowledges the significant improvements on the 2015 edition.

We are pleased that two very important topics are now standalone modules: climate change and energy, and governance and business ethics. It was timely to give these topics greater profile in the Guidance: oil and gas industry stakeholders are increasingly seeking to understand how companies take management decisions about both climate change strategy and other aspects of ESG performance.

Another improvement is the new modular structure, which will help users to find information on specific topics. This structure will make it easier to update individual modules in future without having to update and re-publish the entire Guidance.

The editors have also reduced jargon, simplified the language and provided concise practical advice on what companies should include in their report narratives. These enhancements are especially helpful to users whose first language is not English, and to companies who are new to sustainability reporting.

The reporting elements within each indicator now contain only two tiers ('core' and 'additional'), instead of the previous three. This improves clarity and simplicity, especially for companies who are new to sustainability reporting. It also encourages companies to demonstrate progress by incorporating the additional elements into their reports over time.

New indicators include climate governance and strategy, protected and priority areas for biodiversity conservation, and community grievance mechanisms. The content of many existing indicators has been improved, with clearer and in some cases more exacting reporting elements. In some indicators, reporting elements that were formerly 'additional' are now 'core', reflecting external expectations that these elements are essential to sustainability reporting rather than peripheral.

We are pleased that our feedback contributed to the greater emphasis on metrics and targets in the Guidance, for example in the reporting elements for the climate change and energy indicators. This reflects a growing expectation that companies should publish targets for a range of ESG indicators and report progress. We also welcome the stronger emphasis on how companies are preparing for the energy transition in a just and inclusive manner and aligning business models to support the Paris Agreement.

However, the Panel notes that using this Guidance is still merely voluntary for IPIECA, IOGP and API member companies. This situation has not changed since the 2015 edition. Although most jurisdictions still require only limited sustainability reporting, regulation and societal expectations are growing, and companies can expect non-financial reporting requirements to increase in many jurisdictions. We therefore believe that membership of IPIECA, IOGP and API should include a firmer commitment that companies will follow the sustainability reporting guidance that they have helped to create. At the time of writing, sustainability reporting amongst a substantial proportion of member companies does not meet the expectations in their own industry guidance.

In the climate change arena, the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures) have rapidly gained influence since its inception. The Panel believes that the TCFD recommendations should have considerably more prominence in the Guidance. Current trends also indicate that many key stakeholders for this

industry view information on Scope 3 emissions as a core aspect of credible sustainability reporting. Future revisions will need to address these points.

In the broader sustainability arena, the UN SDGs (Sustainability Development Goals) are increasingly influential, and the oil and gas industry can play a key role in progressing these. Future editions of the Guidance may need to recommend that companies give more emphasis to the SDGs in their sustainability reporting.

For investors and ratings agencies, sustainability reports are an important source of information for their assessments of oil and gas companies' ESG performance and strategy. All stakeholders, and particularly investors, need coherent communication from companies on how they are addressing climate change as a strategic business risk. This information increasingly influences investors' portfolio selection and capital allocation decisions.

Investment institutions' scrutiny of the oil and gas industry reflects the priorities of their own shareholders and other stakeholders, who are increasingly pressing them to justify, reduce or cease investing in oil and gas because of climate change concerns. Some oil and gas companies are not yet disclosing how climate change will affect their business, and they are not demonstrating active management of climate change risks to their resilience and viability. This information gap reduces investors' confidence that they will continue to receive attractive returns and makes it hard to resist the demands to decarbonise their own portfolios.

Lack of data and poor-quality information negatively affect how investors, ratings agencies and regulators perceive the industry. Companies therefore need not only to improve their management of risks from climate change and other ESG issues, but also to report and explain their year-on-year progress with industry-agreed consistent performance metrics. These need to be comparable across the industry, so that investors and other stakeholders can systematically compare different companies' performance. Publishing targets and KPIs on key topics and then reporting progress against them can be challenging for companies and puts pressure on them to deliver; but they are an important part of convincing stakeholders that the industry can remain economically resilient in a changing world.

This Guidance contains much excellent advice. Its long-term benefit depends entirely on its implementation by the industry. Transparency is an essential part of overcoming the trust gap between the industry and society. We encourage oil and gas companies to embrace sustainability reporting as not merely a duty, but an opportunity to communicate to investors and other stakeholders that they understand and are addressing their ESG risks and opportunities in a way that makes them viable and valuable corporate citizens.

Acknowledgements

Module 1

Reporting process

Why report?

Access to affordable, reliable energy lies at the heart of almost every business opportunity and challenge our world faces today. Energy helps economies grow, improves health and quality of life and lifts people out of poverty.

Meeting the world's future energy needs by transitioning to low emission energy sources is key to delivering sustainable development. As a major participant in the global economy, it is vital that the oil and gas industry clearly communicates how it is supporting the energy transition.

We know that people and organizations around the world want to understand the oil and gas sector's evolving business and talk to companies about the impact of their activities, as well as the risks, opportunities and trade-offs. One of the ways in which companies respond to these requests is through corporate reporting, specifically sustainability reporting — also known as corporate citizenship, corporate responsibility, non-financial, or environmental, social and governance (ESG) reporting.

While reporting on sustainability strategy and performance is of interest to many stakeholders, its importance continues to increase significantly for the investor community. There is a clear focus on a more robust assessment of ESG issues across investment portfolios. Climate change in particular, has become a major topic for investors who are themselves receiving demands from their clients and other stakeholders (including regulators) to demonstrate both the climate-related impact and the climate resiliency of their portfolios. ESG rating agencies´ products are an important source for investment decision making and for companies' ability to attract ESG focused funds. When developing their ratings, agencies base their scores on companies' public disclosure (including sustainability reports) and controversies, underscoring the need for best-in-class ESG disclosure.

Parties in the supply chain — suppliers as well as customers — are also refining their expectations of companies´ transparency. Tenders by buyers are integrating ESG pre-qualification items, and high-quality reporting can make the difference in gaining valuable contracts and working with companies with similar values. Equally companies can mitigate supply chain risks of poor social and environment practices by encouraging transparency throughout their procurement processes.

KEY FACTS AND FIGURES

- Oil and gas accounts for approximately **56%** of total global fuel consumption.
- Every day the industry produces approximately **100 million barrels of oil** and **10 billion cubic metres of natural gas**.
- World energy demand **increased by around 100%** over four decades to 2018 and is predicted to **grow by a further 50%** by 2050.
- Renewables are expected to be the fastest growing source of energy, although hydrocarbons are expected to remain the **dominant source of energy** to 2035.

Financial institutions, such as banks, are under pressure from external stakeholders to explain their provision of financial services. Communication of robust operational management and performance therefore enables financial institutions to continue to support client and investor relationships with the industry and contribute to the energy transition together.

Regulators across the world are reviewing their laws and guidelines in order to develop tools and incentives to build and strengthen resilience of economies facing the energy transition. The challenge is to shift investment in a way that helps to achieve the UN SDGs and move towards a lower carbon world based on the Paris Agreement which by February 2020 has been ratified by more than 180 countries. Companies benefit from constantly developing and enhancing their reporting beyond financial data in order to explain how they are meeting requirements and expectations, and support the energy transition.

BENEFITS OF REPORTING

Good quality reporting can help you to:

- **Enhance business value:** investor and regulator trust and confidence can grow with evidence that your company is managing risks and taking advantage of opportunities.

- **Clarify purpose:** examples of current initiatives and long-term plans can show how you are addressing strategic issues, and responding to stakeholder responding positively to stakeholder engagement.

- **Improve operations:** by helping employees better understand your company´s sustainability values, performance indicators and external drivers.

- **Strengthen relationships:** stakeholders can gain a source of reliable information to understand and judge your company's performance.

- **Enhance credibility:** customers, suppliers and wider society can understand the company's values, brand, operations and products.

- **Improve access to capital:** evidence shows that good sustainability performance can contribute to improved financial performance.

Table 1.1: Communications channels

This table shows the range of communications channels a company might use. Verified sustainability reporting content can be used to underpin other reports and documents. As demand for more consistent and comparable disclosures increases — supported, in some countries, by mandatory reporting requirements — a sustainability report may have wider application in many contexts.

REPORTING CHANNEL	PRINCIPAL TARGET AUDIENCE / STAKEHOLDER
Sustainability report	Diverse stakeholders
Annual report and accounts	Shareholders and investors
Statutory stock market filings	Shareholders and regulators; national and international
Integrated sustainability / financial report	Capital providers
Environmental, Social and Governance disclosures (e.g. reports, surveys, ratings questionnaires)	Investment funds, research houses, rating agencies, NGOs
Location reports	Local communities, local regulators
Issue-based reports (e.g. climate, water, human rights)	Targeted stakeholder groups, such as NGOs
Regular publications, online communications	Employees, customers, communities

ABOUT THE GUIDANCE

The Guidance is designed to help sustainability managers, communications professionals and environmental, health and safety or socio-economic specialists in oil and gas companies develop voluntary corporate-level reporting for internal and external stakeholder audiences. At the same time, it can also be useful for those providing services to the industry, such as oilfield service companies, contractors, and other stakeholders looking to develop and improve their own reporting practices. Organizations operating at a national, regional or international level can gain value from the Guidance.

The Guidance recognizes that while some reporters are multinational public corporations, others may be state- or privately-owned medium-sized companies, where local reporting, tailored to individual stakeholders, may be more suitable, or where the range of issues may expand over time.

In the Guidance, we refer to 'your sustainability report'. However, we recognize that companies are reporting in different ways and formats than just one sustainability report: alternatively, you may include sustainability topics in your annual report, prepare an integrated report, or publish reports on particular topics such as climate change or biodiversity. No matter what your format of choice is, the Guidance can be applied for any of those.

The Guidance does not set standards or predetermine stakeholder needs. It deliberately offers experienced and new reporters, large and small companies, choices to help determine the most relevant issues for their business and stakeholders. And it includes a management process that companies can use to identify their material issues via a series of indicators that are widely used across the industry.

The Guidance also serves as a reference to help readers and users of companies´ reports understand the basis of reporting in the oil and gas sector. It offers two types of assistance: how to report, which describes a process for reporting, and what to report, providing advice on how to develop suitable content.

USING THE GUIDANCE

Definitions

Throughout the Guidance we refer to several terms that reflect its structure:

- **Materiality** – a principle and management process that determines which issues should be covered and their priority within a report.

- **Issues** – refers to the topics you choose to report on. Selecting those issues is usually done through a materiality assessment to determine their relevance and priority (see page 1.11 for more on materiality). For example, within environment you may choose to report on your company's use of water.

- **Narrative** – textual content about material issues that takes into account the Key points to address, and which is supported by relevant indicators and reporting elements.

- **Indicators** – specific disclosures which support a given topic. For example, within water you may choose to report on 'discharges to water'. Each indicator is given a code, e.g. ENV-2, which you will see used throughout the Guidance.

- **Elements** – areas within an indicator that you should consider gathering qualitative and quantitative data to demonstrate your company's performance. For example, with respect to your company's freshwater use, you may choose to report on total volume of fresh water withdrawn by your company.

- **Reporting boundary** – the clear definition of what you will and will not include when collecting data for your report. The boundary may differ for different indicators but should be consistent from year to year and between a company's organizational units.

Structure

Starting with this *Reporting process* module which provides an overview on how to report, the Guidance is then split into five modules:

- Governance and business ethics
- Climate change and energy
- Environment
- Safety, health and security
- Social

INTRODUCTION
Brings all issues together within the scope of the module. Provides useful context for all reporters, but especially first-time reporters. Includes useful facts and figures for mature reporters.

KEY POINTS TO ADDRESS
Provides recommendations on content you may choose to include in your narrative that conveys your company's values and stance on these issues, and how you address impacts and contribute to sustainability.

INDICATORS
Supports your narrative by providing quantitative and qualitative information, including your approach and performance. Sets out why each indicator matters, its scope, and reporting elements — and aims to drive consistent reporting across the industry.

REFERENCES AND LINKS
Provides information on useful references and online sources.

MODULE
INTRODUCTION

YOUR NARRATIVE ON ISSUE A:	YOUR NARRATIVE ON ISSUE B:	YOUR NARRATIVE ON ISSUE C:
SUPPORTED BY: INDICATOR A1 INDICATOR A2	**SUPPORTED BY:** INDICATOR B1	**SUPPORTED BY:** INDICATOR C1 INDICATOR C2 INDICATOR C3 INDICATOR C4
REFERENCES & LINKS	REFERENCES & LINKS	REFERENCES & LINKS

Figure 1.1: Guidance structure

Table 1.2: Module and indicator format

Each module within the Guidance is organized in a consistent way.

IN EACH MODULE	
An introduction	Provides an overview, including why the topics may be material.
Key points to address	Offers advice on the sort of information to include in your narrative, including management approach and strategy to address the issue and its effects.
Reporting indicators	These are numbered and consistently structured to help you select the most relevant options.
INDICATOR DETAILS	
Why this matters	Summarizes why this indicator may be important to you, and what the indicator is seeking to show.
Scope	Describes the indicator and its associated reporting elements, in terms of their applicability and relevance; a separate list of 'out of scope' aspects may also be provided.
Basis (if needed)	For relevant indicators, this defines measurement units, as well as data consolidation / reporting boundary considerations.
Definition of terms (if needed)	Offers definitions that clarify terms specific to the indicator. More general terms are included in the Glossary in this module.
Elements	See Step 5 in 'How to report' for how we number and summarize reporting elements.

The Guidance includes 21 possible material issues, along with 43 performance indicators. These indicators use definitions that are specific to the Guidance and the oil and gas industry. Table1.3 (on page 1.6) shows how the indicators align with the 21 issues.

REFERENCING THE GUIDANCE

If you plan to use the Guidance when developing your report we would encourage you to acknowledge IPIECA, API and IOGP to help demonstrate your company's efforts to apply oil and gas industry good reporting practice.

If you do follow the Guidance, we recommend your report includes:

- An index of the sustainability issues that your company considers material for reporting, listing the Guidance indicators relevant to these issues;

- Confirmation that the company has reported against the 'core' reporting elements within each relevant indicator.

In instances, where you do not report against a core reporting element, you should provide an explanation of why it has not been included. This may be because:

- There are confidentiality, commercial or legal constraints;

- The element is not applicable or material to your business; or

- Currently, information is not available or data quality is not sufficiently mature.

Table 1.3: Modules, issue and indicator groupings

MODULES	ISSUES	INDICATORS
Governance and business ethics	Governance and management systems	GOV-1: Governance approach
		GOV-2: Management systems
	Business ethics and transparency	GOV-3: Preventing corruption
		GOV-4: Preventing corruption involving business partners
		GOV-5: Transparency of payments to host governments
		GOV-6: Public advocacy and lobbying
Climate change and energy	Climate strategy and risk	CCE-1: Climate governance and strategy
		CCE-2: Climate risk and opportunities
	Technology	CCE-3: Lower-carbon technology
	Emissions	CCE-4: Greenhouse gas (GHG) emissions
		CCE-5: Methane emissions
	Energy use	CCE-6: Energy use
	Flaring	CCE-7: Flared gas
Environment	Water	ENV-1: Freshwater
		ENV-2: Discharges to water
	Biodiversity	ENV-3: biodiversity policy and strategy
		ENV-4: Protected and priority areas for biodiversity conservation
	Air emissions	ENV-5: Emissions to air
	Spills	ENV-6: Spills to the environment
	Materials management	ENV-7: Materials management
	Decommissioning	ENV-8: Decommissioning
Safety, health and security	Workforce protection	SHS-1: Safety, health and security engagement
		SHS-2: Workforce health
		SHS-3: Occupational injury and illness incidents
		SHS-4: Transport safety
	Product health, safety and environmental risk	SHS-5: Product stewardship
	Process safety	SHS-6: Process safety
	Security	SHS-7: Security risk management
Social	Human rights management	SOC-1: Human rights due diligence
		SOC-2: Suppliers and human rights
		SOC-3: Security and human rights
	Labour practices	SOC-4: Site-based labour practices and worker accommodation
		SOC-5: Workforce diversity and inclusion
		SOC-6: Workforce engagement
		SOC-7: Workforce training and development
		SOC-8: Workforce non-retaliation and grievance mechanisms
	Community engagement	SOC-9: Local community impacts and engagement
		SOC-10: Indigenous peoples
		SOC-11: Land acquisition and involuntary resettlement
		SOC-12: Community grievance mechanisms
		SOC-13: Social investment
	Local content	SOC-14: Local procurement and supplier development
		SOC-15: Local hiring practices
Appendices	References and links	

How to report

REPORTING PRINCIPLES

Before you begin, it is worth taking time to consider the following five reporting principles:

- **Relevance:** reported information should reflect your company's sustainability issues and meet the needs of your internal and external stakeholders.

- **Transparency:** information should be reported in a clear, timely and balanced way and support independent review. This might include disclosure of any processes, assumptions and limitations affecting report preparation.

- **Consistency:** credibility is enhanced if you adopt a systematic use of processes and definitions. It will also help you conduct a meaningful review of your company's performance over time and compare performance both internally and against the wider industry.

- **Completeness:** choose information that is specific and consistent with the stated purpose, scope and boundaries of your report.

- **Accuracy:** information should be reliable, objective and verifiable. It should also give a realistic picture of the company's position, performance and progress.

Figure 1.2: The sustainability reporting process

STEP 1: DEVELOP YOUR PLAN

Developing a sustainability report takes time and resources. How much depends on the scale and complexity of your business. Having a detailed plan helps to provide clarity and consensus on the purpose of your report, who needs to contribute and to approve content, and who will use the report. Take time to consider:

- **Audience:** your report probably addresses different audiences, ranging from shareholders, investors and regulators, to employees, local communities and non-governmental organizations. Establish your main groups to determine what information they expect and what you want them to know.

- **Objectives:** define your aims clearly. As well as communicating with a broad audience, you may have a set of more specific objectives focused on particular stakeholders or issues.

- **Timescales:** a detailed schedule helps to determine the time needed to gather information and create your report. You should consider what sustainability information you have a legal obligation to report (if any), the availability of data, other corporate reporting cycles (such as financial reporting), internal approval points and the frequency of updating report content. Reporting and engagement in the oil and gas industry is typically done on an annual basis, which allows stakeholders to assess progress from year to year.

- **Frameworks:** a range of sustainability reporting frameworks are available and this Guidance is informed by several of these (see *Reporting Frameworks* on page 1.38). Reporters should familiarize themselves with these frameworks to find the ones that best match their objectives, in addition to this Guidance. Some countries define certain frameworks as mandatory.

- **Governance, roles and responsibilities:** developing your report may involve a range of teams and locations. A controlled document is therefore useful to outline responsibilities for the different steps and to communicate those responsibilities to the staff involved.

- **Report boundaries:** your plan should specify which locations and activities to include, as well as how to report on non-operated activities, joint ventures and contractors.

- **Report scope:** your scope needs to outline issues and topics to be included in your report and convey how much coverage each should receive.

- **Communication:** you can maximise the impact and use of your report by planning how to communicate its key messages. You may choose to share information in different formats, for example, a printed publication or internet-accessible formats, depending on particular audiences.
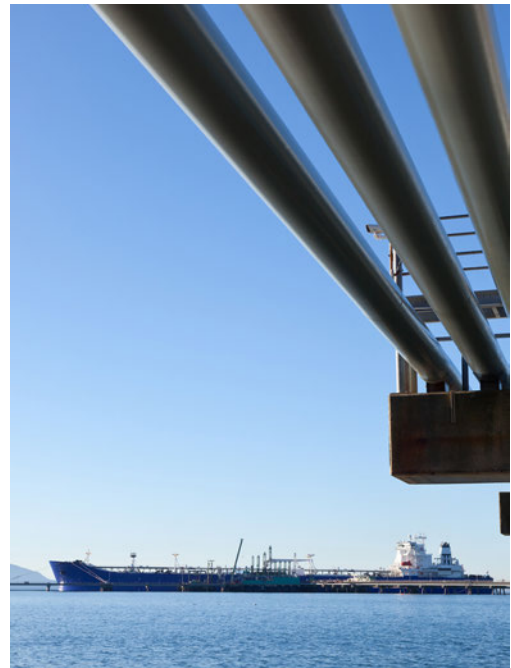
STEP 2: ENGAGE STAKEHOLDERS

You may benefit from engaging your stakeholders by asking their view on your company and the sustainability issues you face before preparing your report. The final publication may be more relevant, accessible and credible. Once published, stakeholder feedback can then help you prompt conversations on key issues, and demonstrate how you are using the outcome of engagements to improve your reporting in the future.

Table 1.4: Typical stakeholder groups and engagement channels

Stakeholder groups: broad categories		Examples of channels for engagement
Internal	Board / Senior management	Focus groups or interviews
	Technical / subject matter experts	Surveys
	Operational staff on site or in location	Panels
	Communications professionals	Web forums
	Legal specialists	Professional networks / societies
	Employees, new and potential recruits	Social networking
	Trade union representatives	Investor roadshows
External	Investors / shareholders	Customer satisfaction surveys / feedback
	Governments / regulators	Company-investor meetings
	Thought leaders / academics	Supplier roundtables and open days
	Community groups	
	Non-governmental organisations	
	Indigenous Peoples	
	Suppliers and contractors	
	Customers	

There are several stages at which a company could seek stakeholder views:

STARTING OUT

Opinion on the company's vision and strategy, governance, management plans, approach, relevant issues and performance.

Can be gathered through dialogue or indirectly through media articles, public reports and surveys.

DURING PRODUCTION

Comment on reporting expectations or to review drafts.

Can help to confirm the relevance of the proposed content.

POST-PUBLICATION

Review the completed report, indicating how they might make use of it, and what they would like to see in the future.

Launch activities provide opportunities for further engagement.

Figure 1.3: Opportunities for stakeholder engagement

Identifying your stakeholders

There are several approaches you can use to identify your priority stakeholders. Figure 1.4 shows a simple analysis technique called 'stakeholder mapping'.

- Prioritizing different stakeholder groups can help make sure you have considered all important audiences and perspectives.

- Stakeholder mapping helps to categorize groups in different ways, such as by opinion or relationship to the company or by current or previous engagement.

POSITIVE

Relationship with company

Keep these stakeholders informed and give them the opportunity to input

Actively maintain and build direct relationships and understand how these stakeholders can help outreach to others

LOW Willingness to engage

STAKEHOLDER MAPPING

Willingness to engage **HIGH**

Understand issues and explore ways to engage (including via third parties)

Actively develop insight into these stakeholders' views and explore ways to engage directly (or via third parties)

Relationship with company

NEGATIVE

Figure 1.4: Stakeholder mapping

STEP 3: SELECT YOUR MATERIAL ISSUES

Given the number of issues that a sustainability report might address, it is helpful to have a simple, transparent process to decide what to include.

What is a material issue?

A material issue is any topic that – in the view of management or stakeholders – affects a company's performance significantly and informs external opinion. They tend to be issues that most affect value creation, and the economic and reputational resilience of a company in a positive or negative way.

Materiality in sustainability reporting is not the same as in financial reporting, where a threshold – such as a percentage of revenue – often determines whether information is disclosed.

Figure 1.5 sets out a process for defining and disclosing material issues. The box below sets out how materiality is defined in several important reporting frameworks.

IDENTIFY
» List all potential issues, both existing and emerging
» List input sources
» Gather company and stakeholder input
» Update issue list based on input

1

PRIORITIZE
» Prioritize material issues
» Determine prominence within the report

2

ANNUAL MATERIALITY CYCLE

REVIEW
» Seek immediate feedback
» Identify improvement actions for next report

5

CHECK
Confirm adequacy:
» Balanced reporting
» Independent assurance
» Issue completeness

3

DISCLOSE
» Outline the process
» Set out the material issues

4

Figure 1.5: Defining and disclosing materiality

MATERIALITY: COMPARING DEFINITIONS

Although a well-established concept within sustainability reporting guides and standards, there are variations in how materiality is defined and used. Ultimately, the aim of guidance and definitions of materiality is to ensure that important issues are communicated to stakeholders and that the company's performance in addressing sustainability is transparently disclosed.

US-listed companies should take care to ensure that any use of the term 'materiality' in sustainability reporting is clearly defined in relation to US Securities law to avoid any concerns about legal liability. Below is a list of some of the main definitions available.

IPIECA / API / IOGP

Material issues are those that — in the view of both management and external stakeholders — have the potential to significantly affect a company's sustainability performance and stakeholder awareness, assessments or decisions.

Global Reporting Initiative (GRI) [1]

The report shall cover topics that:

- reflect the reporting organization's significant economic, environmental and social impacts; or
- substantively influence the assessments and decisions of stakeholders.

Integrated Reporting <IR> [2]

An integrated report should disclose information about matters that substantively affect the organization's ability to create value over the short, medium and long term.

AA 1000 [3]

Materiality relates to identifying and prioritizing the most relevant sustainability topics, taking into account the effect each topic has on an globalization and its stakeholders. A material topic is a topic that will substantively influence and impact the assessments, decisions, actions and performance of an globalization and / or its stakeholders in the short, medium and / or long term.

EU non-financial reporting directive [4]

This directive requires a company's reporting to include a non-financial statement containing information to the extent necessary for an understanding of the undertaking's development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters.

US GAAP (financial reporting) [5]

The omission or misstatement of an item in a financial report is material if, in light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying upon the report would have been changed or influenced by the inclusion or correction of the item (amended in 2018).

3.1 IDENTIFY YOUR MATERIAL ISSUES

In identifying your material issues, the first step is to list all the sustainability issues that could be considered relevant to your company and stakeholders.

To do so, you should draw on a range of sources, such as global trends and challenges (current and future) and standards and regulations. New reporters may find that the issues shown in Figure 1.6 (page 1.14) and addressed in this Guidance are a good starting point, since many of them have been recognized by the industry for some years. However, you should also consider new or emerging issues that are relevant within the reporting year and to take account of long-term issues and trends that might influence your company's strategy.

It is important to gather information from internal and external sources; engaging stakeholders is an integral part of this process and external perspectives can help confirm that your list is complete and balanced. These discussions might also raise a change of focus, emerging issues or omissions.

It is useful to keep a record of all identified issues along with source(s) and supporting evidence. This can help you prioritize and confirm your material issues. Once established, this record can be updated annually.

You might want to create layers within this record. This is because issues are often interlinked and hierarchical, or they can be multilayered and include sub-issues. For example, climate change and energy could cover anything from policy and strategy, to GHG emissions and advocacy.

Your report should outline how often your company conducts a materiality assessment; annual assessment is considered good practice.

The use of data analytics to gather and assess evidence, such as stakeholder feedback, survey data or risk ratings, can help to make your materiality assessment more robust. Databases can also help speed up the process.

Figure 1.6 highlights sustainability issues that are often considered material for the oil and gas industry. It also illustrates the inter-connected nature of social, economic and environmental factors. The word 'issue' in this Guidance covers the range of impacts, both positive and negative, that companies may address when managing their sustainability risks and opportunities.

POTENTIAL SOURCES OF INFORMATION / INPUT ON ISSUES

Internal sources can include:

- company vision, mission and value statements;
- enterprise or other risk assessment processes and management plans;
- policies, codes and standards established by the company;
- strategic plans, including objectives and targets;
- impacts identified through environmental, social, health and safety assessment; processes, and management systems;
- performance reports and scorecards against internal performance indicators;
- interviews with senior management; and
- press statements issued by the company.

External sources can include:

- reports on industry trends;
- media reports and surveys related to the company or the industry;
- feedback from reporting stakeholders in surveys, focus groups, panels etc.;
- benchmarks, indexes and ratings;
- academic and other opinion forming publications;
- legislative changes and compliance records;
- engagement outcomes with communities, suppliers, customers or other stakeholder groups, including grievances; and
- employee feedback and attitude surveys.

» Health and safety
» Local environmental impact
» Ecosystem services
» Fresh water

» Greenhouse gas emissions
» Methane emissions
» Other air emissions
» Spills
» Waste
» Biodiversity
» Protected areas
» Discharges to water

» Diversity and inclusion
» Human rights due diligence
» Community engagement
» Labour standards
» Grievance management
» Cultural heritage
» Security
» Engagement with Indigenous Peoples
» Land acquisition

» Risk management
» Management systems
» Sustainability
» Climate change
» Energy transition

» Jobs created
» Skills enhancement
» Local economic impacts
» Supplier development
» Social investments
» Public advocacy

» Energy use
» Alternative energy
» Flared gas
» Lower-carbon technologies
» Materials management
» Product stewardship
» Decommissioning

» Risk and opportunity
» Revenue transparency
» Business ethics
» Preventing corruption

Figure 1.6: Sustainability issues in the oil and gas industry

3.2 PRIORITIZE YOUR ISSUES

It is common practice to rank the relative importance of each issue using two criteria:

- Significance to the company – the actual or potential impact of an issue on business strategy and performance. This may represent either a risk or an opportunity for the company.

- Significance to stakeholders – the level of stakeholder assessments or decisions related to the impact of an issue on a company, whether negative or positive.

Companies set criteria to help them prioritize issues, often in alignment with their management system or risk framework. Tables 1.5 and 1.6 show how criteria can be weighted to recognize the significance of an issue in terms of its potential impact, likelihood of occurrence and the characteristics of each stakeholder group. Rankings may vary from year to year, based on relevance to the company and stakeholders.

Prioritizing your issues in this way can help you determine how much information to dedicate to it in your report. How you have prioritized your list should be clearly indicated, for example, through an issue's position in the report, such as within the chief executive's introduction or at the start of a content section. The most significant issues may also need greater narrative detail or data, and can be illustrated by case studies.

You may decide that several or all the issues outlined in this Guidance are material to your company. And you may also identify issues that are not covered here but that are specific to your company's activities or locations. This may be the case where oil and gas companies are diversifying their portfolio beyond oil and gas, for example.

Table 1.5: Example of criteria for assessing significance of issues to stakeholders

Significance to stakeholders	Impact on environment or society	Level of stakeholder concern	Contribution to sustainability
Higher	Known to directly cause extensive or severe damage or harm	Widely acknowledged as a major issue or unacceptable situation	An opportunity, with the potential to generate lasting improvement and development
Medium	Known contributor to declining state of ecosystems or socio-economic conditions	Perceived as important in several locations or by some groups	Opportunities for localized improvement or support for wider initiatives
Lower	Known to have measurable but limited effects	Isolated or indirect criticism	Can provide minor but measurable improvement

Table 1.6: Example of criteria for assessing significance of issues to the company

Significance to company	Societal license to operate	Media, public or political impact	Impact on business strategy
Higher	Global, regional or irreversible loss in societal license to operate	Strong criticism or anger expressed at an international level	Fundamental business change, including new opportunities
Medium	Substantive enforcement, fines or regulatory action	Prolonged coverage or local criticism (e.g. national)	Alteration to stated intentions or commitments
Lower	Minor non-compliance without penalties	Short-term coverage or local complaints	Modifications to positions or systems

3.3 CHECK AND CONFIRM YOUR ISSUES

Before publishing your report, take time to check that your material issues have been addressed. You can do this in several ways:

- **Revisit your list:** have you given each issue appropriate prominence? Is it supported with adequate narrative and data evidence, including appropriate reporting indicators?

- **Seek feedback:** ask internal and external stakeholders to review your draft for accuracy, balance and any omissions. It is good practice to seek Board-level approval or agreement from the company's senior leadership.

- **Get external assurance:** for independent assurance, you need to define the exact scope of work for the assurer; it could include a task to review the materiality process and its outcomes. (see *Step 6* on page 1.24 for more information on assurance.)

Ideally, you should resolve any concerns raised at this point. If this is not possible, those concerns should be mentioned in the report and details given on any plans to address gaps in future reports.

3.4 DISCLOSE YOUR MATERIALITY PROCESS AND OUTCOMES

In your report, we recommend that you outline your company's approach to determining material issues and set out the material issues to the reader.

You should choose the most appropriate format for disclosing your material issues, as well as the most appropriate channel. As illustrated in Figure 1.7 (page 1.16), information provided in a sustainability report can be supplemented by disclosure in annual reports,
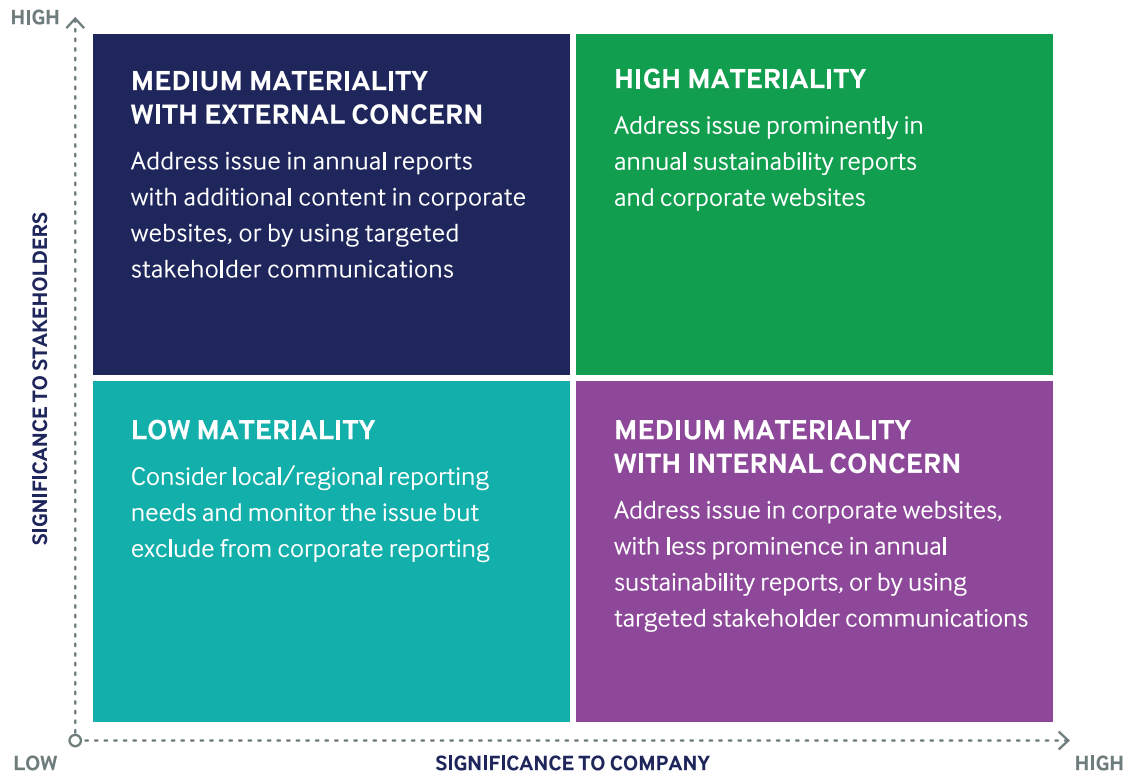
Figure 1.7: Materiality matrix

websites, or in more targeted communications with stakeholders. Some issues, while important, may change little from year to year, such as information on management systems and you may decide whether to include the information in the report itself or by linking to other company information.

There are many ways of describing your materiality process and its outcomes when reporting. You can, for example, illustrate the prioritization of your issues by using a matrix diagram. You can also use a matrix to highlight your company's level of control over an issue, or which stakeholder group has the most influence. Alternatively, some companies map their materiality issues against the UN SDGs (see page 1.28 for more on this) or internal frameworks, such as strategic priorities, or key risks.

Another option is to simply include a list of the most significant issues. The list can be accompanied by a short explanation of why certain issues are significant, any changes from the previous year and page numbers or links to issue information. Providing an excessively long list of material issues might obscure your prioritization.

3.5 REVIEW YOUR MATERIALITY PROCESS

Once published, you should seek feedback to assess whether the report met expectations. This might be feedback gathered by the reporting team or by other teams such as investor relations, or those tasked with stakeholder engagement. This does not need to be extensive: often a few reviewers can provide a good basis for conclusions to test informally on other stakeholders. This feedback can help you review and improve the materiality process for future reports. Throughout the year you will be able to gather indirect feedback through responding to surveys, such as those from rating agencies. You may come across questions that you were not able to respond to based on your reporting, and you may take notes of these for consideration in the future.

STEP 4: DEVELOP REPORT NARRATIVE

A sustainability report should demonstrate, through both quantitative and qualitative evidence, that a company is systematically assessing and responsibly managing its operations and impacts. Reporters should describe the action it is taking on material issues in an engaging narrative, avoiding complex or elaborate language.

Provide context

A report can help explain the significance of a company's performance by demonstrating:

- how the results drive long-term value and are relevant to the company's operations and targets;

- its significance in relation to historic or recent trends and / or prior expectations of performance;

- the nature of positive and negative impacts on relevant stakeholders;

- the opinions of stakeholders or other credible third parties on those impacts;

- how the results may compare to relevant industry benchmarks or averages; and

- lessons learned or under-performance against strategic targets.

Chart your progress

Using indicator information and data, your narrative can demonstrate progress against the company's plans to achieve its targets, together with explanations for variations in performance. Disclosing your performance against quantitative targets is of vital importance to many stakeholders, such as investors. It can enable you to demonstrate your progress using measurable indicators and to describe the steps you are taking to manage performance over a sustained period.

You can also share objectives and targets, such as:

- quantitative targets based on outcomes, such as emission reductions or safety incidents;

- quantitative or qualitative objectives, such as completion of operational initiatives by a planned date;

- commitments to principles or actions, such as continuous improvement; or

- case studies providing evidence of progress against planned programmes, actions taken across a specified period, in a specific location or on a particular issue.

Targets provide stakeholders with a sign of the company's commitment to tackling or making progress on an issue, and are therefore an important indicator of your seriousness in addressing sustainability issues.

Getting the balance right

In the interests of transparency, reporters should disclose significant shortfalls, problems, dilemmas and incidents that occurred during the reporting period. While detailed disclosure may not always be possible, a report should aim to present a balanced picture of the company's challenges and achievements. You risk losing credibility if your report only conveys 'good news'. Reporting your challenges comes with the opportunity to demonstrate the lessons learned and how the company is adapting to improve future performance.

Acknowledge complex issues

Some material issues or company activities may have multiple social, environmental and other implications, for example, an exploration project in a socially and environmentally vulnerable location. In these instances, you may need to report the project's performance against a range of indicators as shown in the following example.

CAPTURING COMPLEXITY USING CORPORATE AND LOCAL INFORMATION

Example: Impact on communities

Oil and gas projects can have large physical and economic footprints. They may bring benefits and challenges for host communities. A report will need to balance corporate level messaging with attention to particular locations (see example on page 1.19 *Working in remote locations*). Your materiality assessment will usually identify the specific locations that require detailed coverage. Aspects that reporters may wish to consider include:

- community policies or programmes, including specific objectives and engagement activities (SOC-8);

- descriptions of local context and the effect on environment, cultural resources, community health and safety and local socio-economic circumstances; supported by indicators such as:
  - › local procurement, local hiring practices, local and local supplier development (SOC-13, 14, and 15);
  - › preventing corruption (GOV-3);
  - › human rights (SOC-1, 2, and 3);
  - › freshwater and biodiversity (ENV-1, ENV-3); and
  - › other air emissions, spills to the environment, discharges to water and waste (ENV-5, 6, and 7).

- local engagement, concerns and expectations and strategies to address them; and

- independent reviews or lessons learned regarding impact on communities.

The power of case studies

Case studies are a powerful way to communicate how you engage with stakeholders and address sustainability in your daily operations. Placing indicator data in the context of real-world operational challenges, can illustrate how you manage sustainability performance.

DEMONSTRATING ACTION THROUGH CASE STUDIES

Example: Working in remote locations

The oil industry works in remote locations, often in developing countries or sensitive environments. Sustainability issues can be particularly important in these areas and care must be taken to respect ecosystem services and the rights of local communities or Indigenous People.

The materiality of issues in these circumstances can be significant for stakeholders at a local level, so it is more appropriate to develop your narrative using a case study that demonstrates how corporate strategy and values are applied to the specific circumstances in that location. For example, a case study describing activities where there are risks to freshwater availability and the potential impact on community relationships might provide:

- the company's local strategy and an overview of the sustainability risks for the remote location;
- the corporate strategy for operating in water-stressed regions and approaches to managing community engagement;
- an explanation of the local water-stress risks, management plans and progress to minimize the environmental impact of freshwater used by the operations;
- a description of the successes, challenges and outcomes of local community engagement, stating any future company commitments; and
- stakeholder or expert third-party opinion or data that provides additional perspective.

Using financial data

Alongside a company's financial disclosures, a sustainability report gives you the opportunity to outline the potential financial impact of the most important non-financial issues facing your company. This can give readers valuable context by reviewing the major risks and opportunities that are likely to affect your company's future financial position, in particular on its revenues, expenditures, assets and liabilities, capital and financing.

To ensure consistency, appropriate financial and operating data should be drawn from your company's annual financial report and can be presented as highlights or in a summary data table. Although financial data are generally reported at the global level, it can help to report selected information at national or regional level. Stakeholders are often interested in intensity metrics (see page 1.22 for more on intensity metrics), such as GHG emissions per unit of production, as they can compare companies and year-on-year reporting.

Companies should also consider reporting any large acquisitions or divestments in the reporting year if the changes have a significant impact on the size and scale of the company or on its overall sustainability performance.

Table 1.7: Typical financial and operating information data

DATA TYPE
Total revenues
Operating expenses
Total taxes paid
Profit after tax
Capital expenditure
Number of employees
Number of countries of operation
Total production (upstream)
Total throughput (downstream)

STEP 5: DEVELOP REPORT DATA

Indicators

Once you have identified your material issues, you will need to select indicators that support your narrative and provide evidence of performance. The Guidance offers information on a range of typical issues relevant to many oil and gas companies, along with indicators that demonstrate how the issues are being addressed.

We would encourage you to report against these defined indicators to enhance industry benchmarking. However, you may also choose to customize your indicators or develop additional measures to demonstrate performance in a particular context (e.g. ratios, intensities); this is another area where it can be useful to seek early feedback from internal and external stakeholders. It is worth remembering an indicator can be relevant to several issues. Where overlaps exist, you might want to combine aspects under a single inclusive narrative.

The following areas should be considered when selecting indicators:

- **Consistency:** reliable reporting on long-term indicators, such as health and safety, helps track performance trends against continuous improvement objectives and to provide comparison within and between companies.

- **Emerging issues:** you may want to supplement existing indicators with new measures to improve disclosures on performance, for example, to report on a new project in a remote location with human rights or environmental sensitivities.

- **Complex issues:** some issues are likely to be relevant to more than one category, for instance, a research and technology project with social, economic, health, safety and environmental dimensions, and may involve reporting against a variety of different indicators.

Reporting elements

Each indicator in this Guidance contains two types of reporting elements. These elements define the types of information or data that can be collected and documented in your report.

'Core elements' are those which have one or several of the following characteristics. They are:

- Essential for giving a clear and credible representation of the company's approach, performance and progress;

- Based on information that is prepared in a sufficiently consistent way across the industry so that it would enable comparisons to be made between companies;

- Based on information that can be confirmed as reliable and verified for accuracy;

- Derived from a generally-accepted methodology for calculating data; and

- In alignment with published industry standards, internationally accepted guidance, or regulation.

'Additional elements' are those which:

- Provide options to report in more depth and further detail, as applicable to your company; and

- Provide information that does not yet reflect common practice. This might include emerging practices, information where agreed methodologies do not exist, or information which is unique to a particular company (such as location-specific or business segment examples);

- Provide information that may be relevant for oil and gas companies which expand their portfolio to include low carbon or renewables business activities.

When using reporting elements, we encourage reporters to incorporate information that is consistent with their indicator scope and reporting boundary and to describe that information as specifically as possible. When reporting on complex issues, an external view can provide additional insight and support explanations.

Collecting your data

Once you have selected your indicators, the next step is to identify the quantitative data and qualitative information you need for your report. The prominence you give a material issue will guide the depth and breadth of the required information.

Once defined, you should request the data internally, supported by appropriate guidance and definitions. Requests for information should be timely: people may need a reasonable amount of time to collect data and carry out quality checks to verify accuracy. Indicators that are new to the company may need time to develop. The introduction of new data gathering processes may take a year or more depending on the size of your organization or the need to introduce new systems for collection and measurement. Once received, data can be consolidated on a corporate basis and reviewed for completeness within the 'reporting boundary'. (See page 1.32 for detailed guidance on the reporting boundary and data management.)
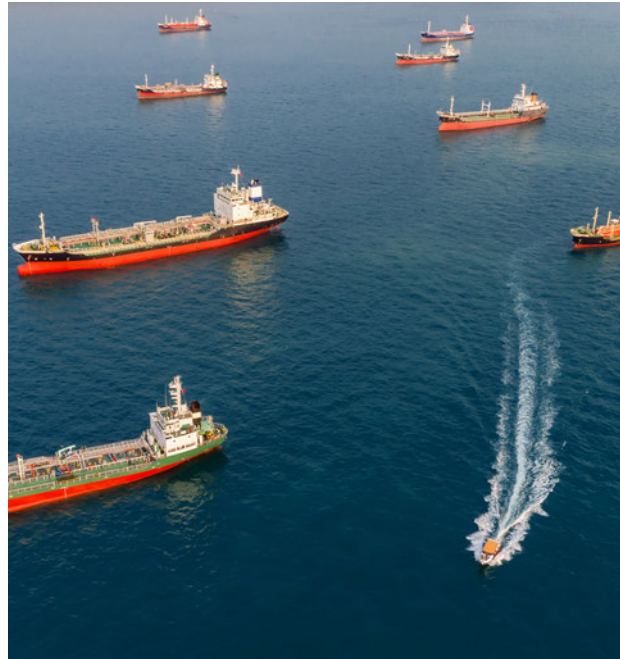
Data management

When selecting your indicators, you should consider the following challenges in data collection and management:

- **Reporting boundaries:** consistency is crucial; therefore, we recommend establishing clear boundaries on what is and is not included in your data collection.

  An indicator's scope may often require data from a complex range of organizational entities working under different commercial arrangements, such as joint ventures. The normalization of quantitative data requires consistency between an indicator's data and normalization factor used to achieve comparison over time (see page 1.22 for more on normalization).

  Our guidance for each indicator includes boundary-related information, but companies are encouraged to define and document their own overall boundary for collecting sustainability data.

  Several protocols exist for setting these boundaries. For example, IPIECA and GRI have protocols for GHG emissions, while IOGP has specific practices for upstream reporting of safety and environmental data. See page 1.32 *Detailed guidance on developing a reporting boundary* for a three-step process to help companies define practical boundaries. This process promotes consistency, supports comparison between companies and facilitates inter-company benchmarking.

- **Establishing baselines:** many companies establish a starting point or base year to maintain data consistency and track performance over time. This helps monitor internal performance, supports decision making and demonstrates progress towards targets. When choosing a reference year, consider the quality of your historical data and the frequency and / or significance of unusual events. Acquisitions and divestments can cause unnatural breaks in data, making performance trends difficult to interpret. Incorporating baseline adjustments can help your reader understand your data. Adjustments or re-statements of data, for example, because of changes in reporting boundaries, definitions of terms, or improvements in data calculation, need to be clearly documented to ensure transparency.

- **Consistent reporting periods:** we encourage companies to publish reports on a regular schedule. In the oil and gas industry that tends to be an annual process. It is good practice to share historical data over a five-year or longer period.

- **Information quality:** we encourage companies to describe the way in which they collect and review quantitative data or qualitative information. Companies should provide appropriate information on the data's source, assessment and degree of confidence in its accuracy or third-party assurance.

- **Data consolidation:** a company's performance data might come from an individual site, national location or even the entire corporation. Companies should decide which levels they want draw to their data from. If appropriate, these levels should also allow for normalization based on categories of business activity, for example, separating upstream and downstream activities (see Table 1.8 for more examples).

  For consistency, the scope of exploration and production activities can be defined by reference to the annual updated IOGP guidance on collection of safety and environmental data. All other activities may be categorized as downstream or midstream activities but it is generally necessary to separate specific downstream activities such as LNG, refining or retail. Regional data can also provide important insights on operating performance and differences between companies.

Data normalization / intensity measures

Readers with an interest in performance information usually look for two types of indicator data:

- **Absolute quantities:** values that reflect the absolute magnitude or size of an output, input, or result, typically expressed as a physical unit of measurement and readily convertible. For example, total greenhouse gas emissions expressed in tonnes of CO_2 equivalent.

- **Normalized quantities:** relative values that are ratios between two absolute quantities of the same or different kind. Typically, indicator data are the numerators of the ratio, and a suitable normalization factor is selected as the denominator. Normalized quantities are also referred to as 'intensity measures' in relation to an output, such as production, and provide comparable measures. For example, greenhouse gas intensity expressed as tonnes of GHG emissions per unit of production.

Normalized quantities are of particular interest to stakeholders such as investors, who want to compare companies.

Companies report normalized / intensity performance indicators for various reasons, including:

- Tracking performance over time in relation to production;

- Accounting for change in the asset base or operations;

- Comparing performance between similar business operations within the company; and

- Benchmarking performance with other companies.

While it is good practice to report both absolute and normalized quantities to create a more balanced sustainability picture, it is not always appropriate to normalize data. For example, if there is no well-defined relationship of scale between the absolute quantities and the normalization factors because different activities required different factors. Generally, companies should normalize performance indicators to reflect business decision making and allow clearer communication of performance (for example, reporting normalized data separately for oil and gas production activities versus refining or petrochemical operations).

Normalization factors vary based on specific indicators. For example, you might report the absolute quantity of workforce injuries as a normalized rate of injury by using the number of hours worked as your normalization factor.

Environmental performance indicators are typically normalized using absolute quantities of related outputs, such as emissions per unit of production. Since the relative magnitude of these outputs can vary substantially, some companies find it helpful – in certain key metrics – to report normalized environmental data for each activity separately. This means the performance can be evaluated more easily. Table 1.8 shows recommended normalization factors.

Table 1.8: Recommended normalization factors for environmental performance data

OIL AND GAS INDUSTRY ACTIVITY	NORMALIZATION FACTOR
Exploration and production (upstream)	Well head production of crude oil, condensates, natural gas liquids and dry gas (including flared gas and gas used for fuel but excluding gas reinjected into the reservoir)*
Refining	Refining throughput of crude oil and other feedstocks
Transportation and terminals	Product delivered or terminal throughput
Pipeline	Pipeline throughput
Marketing (retail)	Vehicle fuel sales
Marine	Cargo volume transported
Petrochemicals	Petrochemicals production

*Note: wellhead production may be used for reporting GHG emissions on an operated and equity share basis (see CCE-4). However, if wellhead data is not available from non-operated assets, equity share GHG emissions may be normalized using net export production on an equity share basis, as in financial reporting.

STEP 6: PROVIDE ASSURANCE

Assurance is an opinion on the quality of reported information and can confirm application of your general reporting principles. Many companies have their own internal assurance processes and you may choose to explain how you applied them within your report.

External assurance can improve the quality and credibility of your report and rating agencies often look positively on the inclusion of an external assurance statement. This type of assurance tends to either be audit-based verification or third-party commentary. Both methods can co-exist in a single report but are distinct processes. It is important that you explain whether you sought independent assurance and, if so, how and what the scope of the work was.

Audit-based verification

This type of assurance typically focuses on quantitative information, such as data systems and interpretation and is typically carried out by accountancy, certification and consulting firms. Your company defines the scope for the auditor to test: it may contain your materiality processes or specific qualitative statements and claims related to company commitments and strategy, governance, management systems or particular data sets. Your scope may also include your adherence to specific standards, such as:

- The International Standard on Assurance Engagements (ISAE 3000, revised in 2015) [6], which is provided by the International Audit and Assurance Standards Board (IAASB), part of the International Federation of Accountants (IFAC). This standard covers the professional procedures undertaken by an assurance provider and is binding on IFAC members, including major accounting and consulting firms. A choice of two levels of assurance is provided – 'limited' is a high-level review, while 'reasonable' is a more rigorous, in-depth process in which the auditors provide an opinion that the data are reliable.

- The AA1000 Assurance Standard [3], which was developed by the Institute for Social and Ethical Accountability, evaluates and provides conclusions on the nature and extent of adherence to the AA1000 Accountability Principles of Inclusivity, Materiality and Responsiveness and, if desired, the quality of publicly disclosed information on sustainability performance. AA1000 also provides options for the type and level of assurance that may be obtained under the standard.

- The GRI Sustainability Reporting Standards [1]: the standards offer a comprehensive suite of performance indicators. While using those standards, there is no particular requirement for companies to have the process or certain data third-party assured. Companies define, based on their materiality process, their level of accordance with the standards.

Third-party commentary

This assurance should also follow a structured process, including a definition of scope, so that readers understand the approach and coverage. It can range from statements from reputable experts on specific topics, to the use of a stakeholder panel or inclusion of academic, non-governmental organization (NGO) or community comments. Statements may include views on management performance, progress and recommendations. They might also offer an opinion on whether the report includes the most relevant and material issues, but they do not generally comment on the reliability or accuracy of information or data.

What to report

CHOOSING YOUR CONTENT: KEY COMPONENTS

The breadth and depth of your report will be determined by the extent of your business activities, their impact across the value chain and your material issues. Below are several simple components that are often included in an oil and gas company´s sustainability report:

- **A CEO statement to:**
  › reinforce the company's vision and long-term targets, making sure that statements made are specific to the company, and avoiding vague generalisations;
  › emphasize the company's commitment to transparency and reporting. This might include a statement or illustration of the CEO's personal commitment;
  › provide stakeholders with a strategic overview and context for the sustainability issues;
  › highlight performance challenges and progress for the reporting year; and
  › outline new investments, initiatives or targets.

  This is an opportunity for your management team to take responsibility for difficult decisions or dilemmas and set out how to address them. For example, the risks and opportunities associated with climate change and the energy transition.

- **Business context:** it is helpful to provide the reader with background information about your company and its activities, covering issues such as its main activities, geographical location, organizational structure, products and services, the scale and composition of the workforce, the spread and nature of its supply chain, and its main sustainability risks and opportunities.

- **Defining 'sustainability':** it is good practice to describe your company's understanding of 'sustainability', 'corporate responsibility' or 'corporate citizenship'. Here, you can also indicate the main implications and opportunities for your core oil and gas businesses. For example, you may want to outline how your long-term success depends on supplying necessary products and services while acknowledging the need to respect and contribute to the communities and environments in which your company operates.

- **Vision:** often addressed in an executive management or board chairman's letter at the start of the report, this can provide your company´s view of the sustainability opportunities and challenges of supplying energy into the future. It may reflect existing corporate values, principles and policies but also newly added commitments with reference to:
  › workforce issues;
  › quality of products;
  › safety and reliability of operations;
  › care for the environment and communities;
  › engaging stakeholders;
  › respect for others and their rights; and
  › innovation and pioneering solutions.

- **Strategy:** your sustainability report should set out how your company's sustainability priorities are integrated with your overall vision and business strategy and how this creates value for your stakeholders and shareholders. Priorities should cover both current operational issues, such as health and safety, environmental impacts and labour practices, as well as longer-term considerations, such as climate change risks or access to new energy resources.

- **Governance and management systems:** you should report on the role that your board or executives play in sustainability-related governance and management. In particular, investors in your company want to understand that issues identified as significant receive adequate attention, and that decisions at the executive level are based on the appropriate information. This text might extend to comment on any ties between sustainability performance and executive compensation.

- **Addressing climate change and the energy transition:** widely regarded as the industry's primary long-term strategic challenge. It is good practice to provide information on your position, strategy and actions, resilience to climate change risk, as well as disclosure of GHG emissions and other related performance indicators. Your report can cover both the risks and opportunities that climate change presents, including any scenario analysis and what the transition to lower-carbon energy means in a practical sense for your company.

- **Managing risks of major incidents:** a major incident can refer to safety, environmental, or social issues. Your sustainability report should describe how your company typically manages safety and other risks, and openly disclose any significant incidents in the reporting year.

- **Local impacts and benefits:** as well as describing corporate policies and processes, your report can draw attention to local operations in countries or sensitive environments, where material issues might include respect for human rights, transparency of payments to host governments, access to fresh water, or protection of biodiversity.

- **Reporting process:** you should explain your overall reporting process, including how you engage with stakeholders, prioritize material issues, prepare and validate information, and whether you use any national or international reporting guidelines.

- **Performance:** as demonstrated through your narrative, indicators and metrics.

REPORTING ON PARTICULAR TOPICS

The following section provides guidance on several cross-cutting topics which often arise in preparing report content.

Alternative energy

One outstanding opportunity for our industry is in supporting UN Sustainable Development Goal 7 – Affordable and Clean Energy (SDGs, see page 1.28). This is particularly important when energy demands are forecast to continually grow to meet the needs of societal development and a rapidly increasing global population.

While providing energy in any form has inherent safety, environmental, economic and social consequences, the risks of climate change have become paramount. This necessitates a transition to modern energy supplies that are low or zero GHG-emitting, sustainable and economically viable over the course of the next few decades. As energy providers, oil and gas companies will play their part in this transition, which can include offering alternative energy derived from non-fossil fuel sources.

There are already many different potential sources of alternative energy available, and research and development projects are searching for new sources. Apart from nuclear power, alternative energy sources of electricity are generally renewable if sustainably replenished from natural resources, such as wind, tidal, hydro, geothermal or solar power. Fuels for transport and heating, such as biomass, ethanol and hydrogen, also provide alternatives that generally have low or no carbon impacts. It is also possible to generate alternative energy that results in a net removal of carbon dioxide from the atmosphere emissions by combining bio-energy with carbon capture and storage (CCS). While these energy technologies are maturing at different rates and can be location dependent, many alternative sources are reaching their tipping point to provide sustainable energy at a cost that is competitive with fossil fuels.

Looking ahead, the transition to modern alternative low or zero carbon energy sources is gaining momentum and the threat to fossil fuel sources is also a business opportunity to offer alternatives. For your company, this Guidance encourages forward-looking communication on how you will embrace the energy transition by discussing applicable alternative low carbon energy sources and by reporting systematically on climate change and energy using Module 3 *Climate change and energy*.

Joint venture reporting

Throughout the oil and gas industry it is established practice for two or more companies to enter into a business partnership agreement to share the costs, benefits and liabilities of assets or a project. While many types of arrangement can form such agreements, the most common is the formation of a joint venture (JV). A JV can be 'incorporated' as a separate legal entity (i.e. a company) where the partners are the shareholders, or a JV can be 'unincorporated' where the partners enter into a contractual agreement for management of the assets or the project. The partners' management of a JV is generally governed by a 'Board' which we use here as a general term when referring to the Board of Directors (in an incorporated JV), a Project Committee or Management Committee (for an unincorporated JV), or some other structure for the partnership agreement. The Board establishes management to operate the joint venture and, by agreement, the operating manager may be one of the business partners. Thus, for the purposes of reporting, your company is likely to be involved in JVs which you 'operate' as well as JVs 'operated by others' (an OBO, sometimes referred to as non-operated JV).

The nature of your company's control (or influence) over a JV may vary depending on whether you are the JV operator, or it is an OBO JV. Nevertheless, it is important

to recognise that your company has sustainability impacts, risks and opportunities related to all JVs, and therefore it is necessary to consider both operated and OBO JVs in your reporting. The extent to which you report covers JVs should be reflected through your materiality process, which takes into account the significance of the risks and opportunities to your company. A useful reference related to significance and JV risks is the IOGP / IPIECA *Guidelines on minimum standards for HSE governance in joint ventures* [7], published in 2002 with a planned revision underway.

In this module, Appendix A provides guidance on developing a reporting boundary which implicitly includes JV reporting. While the boundary guidance primarily helps you to collect a consistent set of quantitative data for your report, the principles can also be applied to qualitative information related to your assets, people and activities. This basis of the Appendix is to set a boundary for collecting data or information based on what you own and what you operate, and therefore relates to both operated and OBO JVs. The data or information can be consolidated in different ways depending on the type of issue, impact, risk or opportunity reported. For example, the 'operational approach' excludes OBO JVs because it will only include safety incidents or environmental impacts for your operated JVs, but it reports the total impact of these JVs irrespective of whether you are a major or minor shareholder. In contrast, the 'equity share approach' will consolidate the impacts, such as GHG emissions, for both operated and OBO JVs, but reported in proportion to the shareholding you hold in each JV.

At a high level, it can be helpful to provide an overview of your approach to governance and management of operated and OBO JVs. This can be included in your reporting of indicators GOV-1 and GOV-2 in Module 2 *Governance and business ethics.* Typically, your discussion can highlight how your policies, code of conduct and management system are applied and monitored when you are the JV operator. The discussion can explain and illustrate how you seek to influence OBO JVs in relation to safety, environmental, social, and business ethics risks and opportunities.

Within the other modules, the sections on 'key points to address' and the scope of some indicators, prompt you to discuss JVs in your reporting, particularly where impacts, risks or opportunities are likely to be significant in terms of JV activities.

The UN Sustainable Development Goals

The UN SDGs [8] were launched in 2015 to represent a widely accepted, comprehensive plan of action for social inclusion, environmental sustainability and economic development. While the SDGs are targeted primarily at governments, oil and gas companies play such an important role in the global economy that we encourage you to describe your company´s position and demonstrate the way in which your company's activities contribute to achieving the SDGs.

This Guidance is also informed by the SDGs. In addition, IPIECA co-developed an Atlas [9] that maps the contribution of the oil and gas industry to the SDGs and provides relevant case studies. It is a useful resource for reporting companies.

Figure 1.8: Mapping the modules to the SDGs

While all the SDGs are of potential relevance, Figure 1.8 shows the Guidance modules that contain specific information to help you demonstrate your contribution to the SDGs.

Many oil and gas companies already report on their contribution to the SDGs and typically do so in one of two ways:

• Using the SDGs as a frame to set out their overall contribution to sustainable development.

• Mapping and discussing material issues against the SDGs that are most applicable to their activities.

You can use this this Guidance to develop either option, since it provides the data and other evidence for the assertions the company makes about its contribution to the SDGs. It is important to note that a company's contribution can embrace both positive contributions to the SDGs as well as activities that increase the challenge set by the goal.

To help, you might like to use tools such as the SDG Compass [10] and IPIECA SDG Atlas [9] that provides guidance on how to align strategies and measure and manage contributions to the SDGs.

USING INDICATORS, WITH CORE AND ADDITIONAL ELEMENTS THAT ARE QUANTITATIVE AND QUALITATIVE

Example: Spills to the environment and process safety

This example demonstrates the applicability of core and additional reporting elements using two of our indicators – process safety (SHS-6) and spills to the environment (ENV-6). These indicators are likely to be material issues for your reporting and are primarily data oriented supported by information about how you manage risks.

Because of its potential to harm people and the environment 'loss of containment' – of either gas or oil – is one of the industry's most critical risks. These two indicators encourage you to report fully on this risk – with SHS-6 focused on safety consequences and ENV-6 on environmental impact. Because the indicators are related by the same basic type of risk, you may wish to inform readers about how the overall risk is managed by your company and to cross-refer between your discussions on process safety and oil spills.

The core reporting element SHS-6 C1 records the number of significant Tier 1 Process Safety Events. These serious loss of containment events caused, or had the potential to cause, loss of life or a serious fire. The criteria for this indicator are defined by recommended practice published by API and IOGP that are now generally accepted for the upstream and downstream oil and gas industry globally. The indicator's focus is safety – to record and learn from events so that oil and gas is 'kept in the pipe' and loss of containment does not occur.

While a gas release is hazardous because of the fire and explosion risk, an oil release can have quite different and potentially catastrophic consequences for the environment and for people. For this reason, ENV-6 reports the number and severity of loss of containment events that result in an oil spills that has reached the environment – whether sea, river or land. The other elements of ENV-6 then focus on impacts, actions and responses to address oil spills.

In both SHS-6 and ENV-6, the additional reporting elements provide the opportunity to offer more data on process safety events and oil spills. The other elements also then encourage qualitative description of how the risks are managed. In SHS-6, the elements include a focus on 'leading' indicators to prevent loss of containment. In ENV-6, the elements report qualitatively on impacts, actions and responses to address oil spills. Together, the indicators enable you to lay out the overall picture of your systems and performance in managing a key industry risk.

For both indicators, companies can consider the range of options suggested by the reporting elements that provide choice depending on the criticality of the issue for your activities. For example, if you transport high volumes of products by ship or pipeline, you can place more emphasis on these aspects within the oil spill or process safety disclosures of your report.

Reporting across your value chain

The oil gas industry encompasses a broad spectrum of activities, from extraction to supply of end products. This spectrum is referred to as the value chain and our Guidance can be applied at any point in that chain.

Figure 1.9 shows the range of activities that a fully 'integrated' oil and gas company – with broad upstream and downstream activities – might pursue. Depending on the size of your company, you may participate in some or all these activities alongside your partners and suppliers. The processes in this Guidance can help you identify which are most relevant to you.

Stakeholders may be particularly interested in either potential short- or long-term impacts of new activities and technologies, such as hydraulic fracturing, oil sands and biofuels. While the issues and indicators in the Guidance are general enough to cover emerging activities and issues, you may decide that any specific issue requires higher prominence even if it does not yet represent a significant proportion of your business. These decisions are usually drawn out through discussions with stakeholders during your materiality assessment.

Figure 1.9: Oil and gas value chain

Lifecycles and the circular economy

A company's activities at a single location may span several decades – for instance from early offshore exploration to decommissioning of a platform. We encourage companies to consider the impacts of their activities across the value chain.

Likewise, a company's products have a lifecycle of benefits and effects. For example, it is possible to assess the environmental 'wells to wheels' impact of a fuel – from production to use – across the entire value chain. Taking a lifecycle approach – including any formal lifecycle analysis – can help you make sure your report covers the right issues with the right priority.

We also encourage companies to demonstrate their interaction with the 'circular economy' – in which resources are kept in use for as long as possible, with the maximum value extracted before being recovered or regenerated at the end of their service life. You might want to highlight your company's response to the risks and opportunities that arise, as well as describing the actions you are taking to reduce waste, improve energy efficiency, recycle, or re-formulate products, such as plastics.

Detailed guidance on developing a reporting boundary

The guidance below provides three steps to help you determine which parts of your company will provide data and how that data will be consolidated for each of your indicators:

1. Define your reporting boundary based on how your company is organized, including a list of every reporting unit that you will be asking to provide data — be it assets, people or processes.

2. For each of your chosen indicators, determine whether an operational, equity share, workforce or corporate approach should be applied to consolidate data within your reporting boundary (see below for details on these four approaches).

3. Collect data at a local, national or global level based on the scope of each indicator and its associated reporting elements.

Our description of the reporting boundary process is deliberately generic. More detailed guidance may be available and referred to in specific indicators. This may be useful if you are planning to use the data for other purposes, such as comparisons within or between companies.

STEP 1: DEFINE YOUR REPORTING BOUNDARY

We recommend you start by identifying all the reporting units within your company. Reporting units should ideally represent the smallest practical building blocks, reflecting the internal management of your company, while allowing data to be reported at local, country, regional or global levels, as needed. A reporting unit can be all or part of a subsidiary company, joint venture, investment, facility, plant, office or business location, depending on the company.

Reporting units manage assets that provide benefits to stakeholders and financial value to the company, but they also have associated environmental, social or economic risks. Assets may be operated and / or owned by the reporting company. Oil and gas reporting units are generally grouped by types of upstream and downstream activities. They may also be grouped in a certain way for financial accounting, which can be a useful starting point.

Defining your reporting boundary can be complex because two or more companies may be commercially involved in one asset and work together under a variety of legal forms. To help consolidate your data (see Step 2 on page 1.33), each reporting unit usually:

- represents a discrete piece of business that is unlikely to be split during internal restructuring or portfolio change;

- manages assets operated by a single company;

- manages assets that have the same reporting company ownership; and

- covers a narrow range of related business activities located in one country.

A reporting unit's manager is generally responsible for providing complete, relevant and accurate indicator data. It is good practice to check that your list of reporting units is sufficiently inclusive to make sure that your consolidated data fully addresses your material issues. This helps provide a complete picture of performance (see reporting principle on completeness on page 1.7).

STEP 2: CONSOLIDATE DATA WITHIN YOUR REPORTING BOUNDARY

The indicators in the Guidance are intended to help you provide data that is representative of the benefits and impacts of your whole company. There are several approaches you can take within your reporting boundary, depending on the purpose and scope of each chosen indicator. Below are the four most common data consolidation approaches that are relevant to this Guidance. It should be noted that more than one approach may be applicable for any indicator depending on which reporting elements you choose.

When calculating normalized quantities (see Step 5 of *How to report* on page 1.20), for example emissions, it is important to make sure that your reporting boundary and chosen consolidation approach are consistent with both your indicator data and normalization factor.

Four approaches for consolidating data within the reporting boundary

Operational approach

Also referred to as operational control, this is the most common data consolidation method, especially for environmental data. It reflects legal and contractual requirements, as well as internal policies, for the management of potential health, safety, environment and social impacts and benefits. Data is collected by reporting units for the assets that they operate even if partly owned by other companies. Data is not collected for assets operated by other companies. The operational approach generally collects and consolidates all data from assets that meet either of the following criteria:

- the asset is operated by the company, whether for itself, or under a contractual obligation to other owners or participants in the asset (for example, in a joint venture or other such commercial arrangement); or

- the asset is owned by a joint venture (or equivalent commercial arrangement), and operated by a joint venture partner, in respect of which the company can determine management and board level operational decisions of the joint venture.

Given the industry's complexity, uncertainty about which assets should be included or not is common. For example, one area that frequently causes a dilemma is mobile assets, such as vehicles or ships. These assets should be included when owned and operated by the reporting unit. However, if they are owned by others and leased or chartered to the reporting unit, the following guidance may be useful:

- Vehicles, aircraft or rail rolling stock not owned by the company but contractually dedicated to exclusive business use by the reporting unit are generally included as operated assets for reporting. This excludes 'spot' charters that are available for regular business use by other parties.

- When considering marine vessels, an asset would typically be included when the reporting unit holds the International Safety Management Code Document of Compliance (DOC).

Alternative criteria for mobile assets may apply when consolidating GHG emissions or other data if a company is reporting to an external, regulated or voluntary scheme.

The operational approach aligns with reporting on the performance of management systems (see GOV-2 in Module 2 *Governance and business ethics*), which generally set processes and procedures for the same operated assets and activities. When applying the operational approach as noted above, it is important that 100% of the data from your operated assets is included and the data should not be reduced in proportion to a reporting company's percentage share of the activity.

Equity share approach

This approach is based on asset ownership (or share of financial benefits) and in this guidance primarily refers to the consolidation of GHG emissions data (see CCE-4 in Module 3 *Climate change and energy*). Unlike the operational approach, data is generally consolidated from all owned, or partly owned, assets in proportion to the reporting unit's percentage share of equity in the assets. In contrast to the operational approach, this means data are consolidated from assets partially owned, but not operated by, the reporting company, as well as from operated assets that are wholly or partially owned – thus, irrespective of who the operator is, data are consolidated but only in proportion to the reporting company's ownership of each asset. This approach is, therefore, closely aligned with financial reporting and is intended to provide a more complete picture of potential responsibilities.

More detail is provided on this approach in the companion IPIECA / API / IOGP document *Petroleum industry guidelines for reporting greenhouse gas emissions* [1].

Workforce approach

This approach consolidates data related to activities that affect employees in the reporting unit's operated assets. Depending on the indicator scope, it can also be used for contractual work that the reporting unit manages, or third parties affected by the activities. The data is generally limited to occupational activities that occur in the working environment and can also be applied to measures such as training. This approach is a useful partner to the operational approach.

As well as production facilities and offices, the work environment may also include road vehicles, aircraft, ships, survey locations, community property, supplier depots or customer premises. The indicator scope sections in this guidance may also define specific activities that are excluded, such as commuting, or voluntary participation in fitness programmes. This approach is commonly used for indicators that record health and safety incidents caused by the activities of operated assets, and may also be applied to other workforce measures, such as training.

Corporate approach

This approach applies to the consolidation of data regarding processes, policies and systems that are developed at a company-wide level but may be implemented locally, nationally or internationally. For example, this could include marketing, research and development, lobbying and staff hiring practices. This approach may be supported by case studies to demonstrate implementation at the asset level. In cases where a company has a standardized policy that applies to everyone, it may not be necessary to consolidate data – simpler processes, such as audits, may provide sufficient confirmation of policy assertions.

The application of the four consolidation approaches can be illustrated by considering a company that decides to collect the following data from each reporting unit within its reporting boundary:

a. **Operational approach:** Direct GHG emissions (CCE-4) data from significant stationary and mobile sources are collected and consolidated based on all emissions from assets operated by the reporting company, to demonstrate its efforts to reduce emissions.

b. **Equity share approach:** Direct GHG emissions (CCE-4) data from significant stationary and mobile sources are collected and then consolidated in proportion to the reporting company's percentage share of emissions from its part- or wholly-owned assets (both operated and non-operated), because the company wishes to provide information on the significance of its emissions in a manner more aligned with its financial reporting.

c. **Workforce approach:** Data on injuries, illnesses and hours worked (see SHS-3 in Module 5 *Safety, Health and Security*) are collected and consolidated for each reporting unit's employees and contractors because the company recognizes its responsibility to manage occupational safety and health risks.

d. **Corporate approach:** The company provides a description of its corporate policies and practices for local procurement (see SOC-14 in Module 6 *Social*) supported by case studies to illustrate how it applies consistent policies in host countries.

STEP 3: COLLECT DATA WITHIN YOUR INDICATOR SCOPE

It is important to create a distinction between the activities and assets managed by reporting units that make up the company's reporting boundary and its indicator scope.

The 'scope' of each indicator in this guidance helps to narrow the relevance of reporting elements to help you ensure your data is applicable and focused on how your company has managed an issue. The scope, supported by definitions of terms, provides direction on the extent and limitations of the indicator to reflect the potential impact of your company's activities. This scope is intended to provide clarity, consistency, comparability and relevance for each indicator.

Depending on the materiality of an issue and the extent of its impact, you will need to make sure you have a complete set of relevant data for each selected indicator. Relevance and completeness will vary for different issues and, therefore, each scope section contains specific guidance for the respective indicator. Options on reporting relevant data or information for that indicator are then provided as reporting elements.

The indicator scope includes potential impacts, or benefits, to parties not directly managed by the company. For example, the scope of indicators may include contractors, suppliers, customers, local communities or governments.

The examples below demonstrate how the indicators can provide options to increase your reporting scope beyond activities that relate to your directly managed operations and employees:

- The scope of the GHG emissions (CCE-4) indicator gives you the option to report 'indirect' emissions data related to power supplied by plants owned or operated by others, as well as reporting your own 'direct' emissions.

- As well as an indicator to report on how a company might address human rights due diligence (SOC-1), a separate indicator provides scope to report on human rights and suppliers (SOC-2). Similarly, another indicator addresses local procurement and supplier development (SOC-14).

- The health and safety indicator on occupational injury and illness incidents (SHS-3) applies to contractors as well as employees, while the product stewardship (SHS-5) indicator includes scope to address how a company communicates product risks to customers.

Reporting beyond your boundary

You might want to extend the collection and consolidation of your data beyond your defined reporting boundary, although this would usually only apply to certain indicators where an issue is particularly material. This could include:

- Large joint ventures where the company is not the operator but has a substantial equity share. While GHG emissions data can be consolidated using both equity share and operational approaches, you might want to add further detail to a specific joint venture's sustainability performance, supported by available data from the joint venture.

- Some contracted activities, such as road transport or shipping, may be partially excluded from the consolidated data because certain assets are non-operated, or the activities are outside the indicator scope. However, you might want to expand the description of risks or incidents, or other potentially significant impacts, and discuss mitigation measures, supported by available data.

While you may want to include this additional data and its source, it should be reported separately so that a base comparison can still be made on the data within your company's reporting boundary.

Table 1.3: Modules, issue and indicator groupings

MODULES	INDICATORS	OPERATIONAL	EQUITY SHARE	WORKFORCE	CORPORATE
Governance and business ethics	GOV-1: Governance approach				▉
	GOV-2: Management systems				▉
	GOV-3: Preventing corruption				▉
	GOV-4: Preventing corruption involving business partners				▉
	GOV-5: Transparency of payments to host governments				▉
	GOV-6: Public advocacy and lobbying				▉
Climate change and energy	CCE-1: Climate governance and strategy				▉
	CCE-2: Climate risk and opportunities				▉
	CCE-3: Lower-carbon technology				▉
	CCE-4: Greenhouse gas (GHG) emissions	▉	▉		
	CCE-5: Methane emissions	▉	▉		
	CCE-6: Energy use	▉			
	CCE-7: Flared gas	▉			
Environment	ENV-1: Freshwater	▉			
	ENV-2: Discharges to water	▉			
	ENV-3: biodiversity policy and strategy				▉
	ENV-4: Protected and priority areas for biodiversity conservation	▉			
	ENV-5: Emissions to air	▉			
	ENV-6: Spills to the environment	▉			
	ENV-7: Materials management	▉			
	ENV-8: Decommissioning	▉			
Safety, health and security	SHS-1: Safety, health and security engagement				▉
	SHS-2: Workforce health			▉	
	SHS-3: Occupational injury and illness incidents			▉	
	SHS-4: Transport safety			▉	▉
	SHS-5: Product stewardship				▉
	SHS-6: Process safety	▉			
	SHS-7: Security risk management				▉
Social	SOC-1: Human rights due diligence				▉
	SOC-2: Suppliers and human rights				▉
	SOC-3: Security and human rights				▉
	SOC-4: Site-based labour practices and worker accommodation				▉
	SOC-5: Workforce diversity and inclusion			▉	
	SOC-6: Workforce engagement			▉	
	SOC-7: Workforce training and development			▉	
	SOC-8: Workforce non-retaliation and grievance mechanisms			▉	
	SOC-9: Local community impacts and engagement				▉
	SOC-10: Indigenous peoples				▉
	SOC-11: Land acquisition and involuntary resettlement				▉
	SOC-12: Community grievance mechanisms				▉
	SOC-13: Social investment				▉
	SOC-14: Local procurement and supplier development				▉
	SOC-15: Local hiring practices			▉	

Reporting frameworks

In developing this reporting Guidance, we have considered the approach and content within a range of other sustainability reporting frameworks. Over the past two decades, IPIECA, API and IOGP have maintained open dialogue with the UN, GRI and other organizations to exchange information and provide feedback on reporting frameworks.

While this guidance has been developed to provide sector-specific information on good practice in sustainability reporting, the disclosure landscape is complex and ever-evolving. For example, much of the information provided in sustainability reporting is also requested in questionnaires received by companies directly from investors, NGOs, customers and suppliers, but there is no single set of agreed upon disclosures. We therefore aim to reflect other good practice and understand frameworks which are important to key stakeholders as we adapt them for our industry context.

The frameworks highlighted in this section (shown in alphabetical order) were the five most commonly used by IPIECA members in 2019 to guide their reporting. We have also listed a number of other well-established frameworks that are frequently used. This is by no means an exhaustive catalogue of reporting frameworks, and does not reflect reporting requirements included in local, national or international regulation, nor is it associated with stock exchange listing requirements. The inclusion of a framework does not imply its endorsement by IPIECA / IOGP / API.

You may wish to consider the additional reporting recommendations contained within these frameworks, in the light of your material issues. Where relevant, framework documents are cited within the References and Useful Links sections at the end of each module of the Guidance.

Global Reporting Initiative (GRI)

GRI [11] is a well-established non-profit organization that has developed sustainability reporting guidelines, now published as a set of global standards. They feature a modular, interrelated structure covering a range of economic, environmental and social topics. They are designed to be used as a set by any organization that wants to report about its performance and impacts, and how it contributes towards sustainable development.

The GRI Standards are categorised into four 'series':

- The 100-series includes three universal Standards guiding reporters in using the Standards, reporting an organisation´s relevant contextual information, and reporting how its material topics are managed.

- The 200 / 300 / 400 series provide topic-specific Standards to be used to report information on an organisation´s material impacts related to economic, environmental and social topics respectively.

Task Force on Climate-Related Financial Disclosures (TCFD)

The TCFD [12], established in 2015 by the Financial Stability Board, was tasked with developing voluntary, consistent climate-related financial disclosure recommendations that would be useful to investors, lenders, and insurance underwriters in understanding material risks. The 32 members of the TCFD were selected by the Financial Stability Board from various organizations, including large banks, insurance companies, asset managers, pension funds, large non-financial companies, accounting and consulting firms, and credit rating agencies.

In its work, the TCFD drew on member expertise, stakeholder engagement, and existing climate-related disclosure regimes to develop recommendations for climate-related financial disclosures. The TCFD developed their recommendations on climate-related financial disclosures to be applicable to organizations across sectors and jurisdictions.

UN Global Compact

Commitment to the UN Global Compact [13] includes the requirement to submit an annual Communication on Progress (CoP) that can be met through publication of an annual sustainability report. The CoP requires, as a minimum, a statement of the practical actions a company has taken, or plans to take, to implement the 10 Global Compact Principles in four areas: human rights, labour, environment and anti-corruption.

UN Guiding Principles on Business and Human Rights

The UN Guiding Principles on Business and Human Rights [14] are a set of guidelines for governments and companies to prevent, address and remedy human rights abuses committed in business operations. They were proposed by UN Special Representative on business and human rights, John Ruggie, and endorsed by the UN Human Rights Council in June 2011. In the same resolution, the UN Human Rights Council established the UN Working Group on business and human rights. The UN's separate Reporting Framework provides 31 questions (eight of which provide minimum guidance) for companies that wish to report on how they respect human rights.

UN Sustainable Development Goals (UN SDGs)

The 17 SDG [8] s provide a framework for building a better world for people and the planet by 2030. Adopted by all United Nations Member States in 2015, the SDGs are a call for action by all countries – poor, rich and middle-income – to promote prosperity while protecting the environment. They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, equality and job opportunities, while tackling climate change and working to preserve our ocean and forests.

OTHER FRAMEWORKS

International Organization for Standardization (ISO)

Since 1947, ISO [15] have developed a range of well-established management system standards, many of which are reviewed and updated periodically. The standards are often offered as part of a family or series of documents that can be adopted by companies or integrated within their own internal management systems.

Principles for Responsible Investment (PRI)

The PRI [16] provide six voluntary investment principles that offer a menu of possible actions for incorporating ESG issues into responsible investment practices. Principle 3 focuses on ESG disclosures including reporting using tools such as GRI or initiatives such as UN Global Compact.

Sustainability Accounting Standards Board (SASB)

The SASB [17] is an independent non-profit whose mission is to establish industry-specific disclosure standards across environmental, social, and governance topics that facilitate communication between companies and investors about financially material, decision-useful information. Such information should be relevant, reliable and comparable across companies on a global basis. SASB's standard-setting is accomplished through a rigorous process that includes evidence-based research and broad, balanced stakeholder participation.

The Organisation for Economic Co-operation and Development (OECD)

The OECD's Guidelines for Multinational Enterprises [18] are recommendations addressed by governments to multinational enterprises operating in or from adhering countries. They provide non-binding principles and standards for responsible business conduct in a global context consistent with applicable laws and internationally recognised standards. The Guidelines provide a multilaterally agreed and comprehensive code of responsible business conduct that governments have committed to promoting.

The OECD have also produced Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector to help practitioners in the mining and oil and gas industries address the challenges raised when engaging with stakeholders. The guidance provides a practical framework for identifying and managing risks with regard to stakeholder engagement to ensure companies play a role in avoiding and addressing adverse impacts. It includes an assessment framework for industry to evaluate their stakeholder engagement performance and targeted guidance for specific stakeholder groups such as indigenous peoples, women, workers and artisanal and small-scale miners.

CDP

CDP [19], formerly the Carbon Disclosure Project, runs a global disclosure platform that enables companies, cities, states and regions to submit information on their environmental performance and impacts. Data submitted to CDP is used to develop analysis of critical environmental risks, opportunities and impacts of interest to investors, other businesses and policy makers. CDP areas of focus cover climate change, water and forests.

WBCSD / WRI

The WBCSD / WRI Greenhouse Gas Reporting Protocol [20] provides comprehensive global standardized frameworks to measure and manage GHG emissions from private and public sector operations, value chains and mitigation actions. The contents of the Protocol are reflected in the Climate Change and Energy module of the Guidance.

WBCSD provides other resources and programmes in support of good quality corporate reporting on sustainability. This includes the 'Reporting Exchange' source of information on sustainability reporting, and the 'Reporting Matters' programme which seeks to improve the effectiveness of reports. It involves analysis of sustainability reports from member companies against a set of comprehensive indicators, and the possibility of feedback. An annual overview of reporting trends is produced which showcases good practices and provides recommendations for how to improve.

References and links

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20 WRI/WBCSD GHG Protocol https://ghgprotocol.org/

Module 2

Governance and business ethics

Introduction

GOVERNANCE AND MANAGEMENT

Interest from stakeholders on the impact that business has on society and the environment continues to intensify. This is partly due to the breakdown in corporate governance on certain occasions, with consequences that can threaten a company's resilience or its license to operate. This breakdown, caused by legal violations, operational negligence, corruption, or the failure to follow acceptable standards of corporate behaviour, can have swift, dramatic consequences for a company's reputation or financial stability. These consequences do not just affect employees and shareholders, but communities, families, suppliers and customers.

As a result, some stakeholders, particularly Non-governmental Organizations (NGOs), are pressing the oil and gas industry to disclose more detailed information about how they handle sustainability issues. They are looking for assurance that the industry is systematically managing challenges that relate to safety, security, the environment, climate change, ethical behaviour and human rights.

Equally, investors, on account of their fiduciary responsibilities, pay close attention to the way in which businesses conduct their activities to ensure that financial and non-financial risks and opportunities are properly managed. This can include a wide range of traditional and emerging non-financial topics, from health and safety, to cyber security. As a result, investors are increasingly asking companies to provide governance information to help them make their financial decisions and generate sustainable, long-term returns. And the industry is responding with a growing number of companies now reporting in more detail on environmental, social and governance (ESG) issues and the policies and procedures they use to manage them. In particular, investors are looking for more forward-looking disclosures that demonstrate board members and senior management are taking a long-term strategic view of their business resilience, risks and opportunities and addressing changing societal expectations.

This Guidance encourages you to describe your governance systems, with which your board and executives address critical ESG issues and enterprise-level risks, such as climate change, safety and human rights. Your report can also set out how all levels within your company, from management to frontline staff, follow your principles, codes of conduct and systems to manage risks and opportunities. You may also follow specific codes set out by host governments that follow, for example, the 2015 G20 / OECD *Principles on corporate governance* [1].

Strong governance is supported by enterprise-wide management systems that document how you assess and control risks, impacts and threats while constantly seeking opportunities to be more sustainable, effective and successful. The system sets out consistent expectations for its operations when addressing environment, security, safety, health or social risks and opportunities. Examples of issues addressed could include major safety incidents, impacts on local communities,

Figure 2.1: Integrated operating management system (OMS)

An integrated Operating Management System (OMS) provides a framework for documented requirements, processes and procedures that apply to all levels and activities in a company.

Figure 2.1 shows 10 elements that are underpinned by the four fundamentals within the IOGP-IPIECA *Operating Management System Framework for controlling risk and delivering high performance in the oil and gas industry* [2]. An important fundamental that underpins an OMS and most other types of management systems is the continuous improvement cycle of Plan-Do-Check-Act.

or conservation of freshwater and biodiversity resources in developing countries. Separate management systems may address specific topics such as the environment, or topics may be integrated under a common operating management system (OMS, see example).

BUSINESS ETHICS

This module also addresses business ethical conduct processes, which are generally included in a company's high-level governance approach, principles and values, including any mission or vision statements or a company's constitution. The reporting guidance and indicators in this module will help you describe your approach to business ethics, including your anti-corruption and business practices that provide the principles, codes and rules to be followed by management, employees and suppliers at every level.

In addition to being illegal in most countries, the bribery of private or public persons to obtain business advantage can distort international competition and negatively affect economic and political progress. UN, OECD, EU and other international conventions against corruption have been widely endorsed. At the national level, many countries have anti-corruption measures, which include provisions often derived from the international conventions. However, although similar in intent, the conventions and national legislation can vary considerably in terms of scope and obligations.

While legislation tackles corruption, there are practices that it does not always address clearly, including facilitation payments, donations and gifts. Companies therefore commonly establish their own business ethics policies supported by codes of conduct or integrity programmes which you can highlight in your sustainability reporting.

Transparency is an important part of demonstrating ethical practice, particularly for revenue payments to host governments, advocacy or lobbying. Oil and gas companies contribute large sums of money to the economies of host governments. However, a lack of transparency can mask how that wealth is distributed, making it hard to see how revenues benefit a country and its communities — an effect that contributes to what is known as the 'resource curse'. Revenue transparency gives your company a way to disclose information about revenue from your activities in resource-rich countries. The best-known effort to promote and standardize revenue transparency is the Extractive Industries Transparency Initiative (EITI) [3], under which:

- companies within a country report on their significant payments to the host government;

- the host government reports what it receives; and

- the host government issues a public report on company payments and government revenues.

Business can have an influence through their participation in public policy debates and legislative developments. Engagement of this sort, either directly or through trade associations, is both legitimate and necessary. Transparency regarding a company's political engagement and financial contributions (when permitted) is an important part of maintaining trust with many stakeholders. It is good practice to discuss your position on advocacy and lobbying in your report, including your position on particular issues.

Key points to address

A. The composition of your board, how you nominate and appoint directors, how your board functions, how you address diversity and inclusion, how often it meets and whether specific members are associated with sustainability issues or are members of a related sub-committee, which may include independent advisers.

B. The processes used to inform your board on sustainability issues and how it oversees the associated risks and opportunities in relation to resilience, strategy, major expenditures, portfolio changes and significant commitments. You should include whether your board has set specific sustainability targets and whether remuneration is linked to sustainability performance.

C. Reference any corporate governance codes that you follow.

D. Governance and management of sustainability issues when engaged in business partnerships including joint ventures, whether operated by the company or operated by others (see guidance on *Joint venture reporting* in Module 1 *Reporting process*).

E. Your organizational structure and the roles of your most senior executives in assessing and managing sustainability issues, including engagement with stakeholders and how you integrate sustainability considerations into your decision making. This should also include information on your principles and values, including how you develop and communicate any documented codes of conduct throughout your organization, including contractors and suppliers.

F. The status, implementation and effectiveness of your management systems. In addition to established financial systems of internal control, management systems typically apply to all non-financial aspects. These systems apply an integrated approach to managing operational activities that have the potential to affect people or the environment.

G. Alignment or adoption of established industry and / or national / international management system frameworks, such as the International Organization for Standardization (ISO) [4] management system standards on risk, health and safety, environment, quality, energy and social responsibility.

H. For business ethics and transparency:

i. How you address ethics and transparency through governance, policies and systems of internal control to promote robust standards of business conduct throughout the organisation.

ii. Your stance on corruption in relation to your operations, including suppliers, contractors and any other business relationships. Provide supporting information on your anti-corruption policies and how you make sure they are implemented and monitored.

iii. The importance of promoting revenue transparency in the countries / regions where you operate and provide EITI information if applicable.

iv. Your approach to advocacy and lobbying on sustainability issues, including your views on public policy. Your participation in trade associations and lobbying groups.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

GOV-1
Governance approach

WHY THIS MATTERS

Corporate governance defines the relationship between stakeholders, management and the board of directors of a company. Good governance provides direction on how the company will achieve its goals, control risk and benefit its stakeholders, including workers, suppliers, local communities and the natural environment. This indicator provides information on your organization's structures, policies and codes that provide governance over all sustainability-related aspects of your company's activities.

SCOPE

You should describe key elements of your governance approach, including:

- the selection and appointment of the senior individuals, such as board members and senior executives who are accountable for decisions on sustainability-related issues;

- a transparent description of the roles of senior bodies with responsibility for sustainability issues. This should include a description of how they operate and engage your shareholders, the workforce and external stakeholders;

- a description of how your workforce carries out activities in accordance with your policies and procedures, in an ethical and safe manner; and

- how your leadership has oversight of the day-to-day and long-term actions and operations, with sufficient due diligence and monitoring systems in place to provide assurance that your governance is effective.

This indicator is intended to describe your generic approach to high-level governance of sustainability-related matters. In other parts of your report, you can include relevant details on governance where appropriate to specific sustainability issues. The *Climate change and energy* module recommends, the Guidance recommends inclusion of additional details about climate-related governance and management approach.

Where appropriate, you should provide information regarding your governance of entities such as non-operated joint ventures.

It should be noted that you may choose to use your statutory financial filings as your primary vehicle to report on this indicator and the reporting elements below. However, it is good practice to provide an overview of this information in your sustainability report, together with clear references or links to those disclosures.

INDICATORS

GOV-1
Governance approach ▶

GOV-2
Management systems

GOV-3
Preventing corruption

GOV-4
Transparency of payments
to host governments

GOV-5
Public advocacy and
lobbying

REPORTING ELEMENTS

CORE

C1	Describe your governance architecture, including the role of the board, board committees, board diversity, executives, managers, the workforce and stakeholders.
C2	Describe your code of conduct, values and principles and how they relate to sustainability.
C3	Describe the way in which your board reviews sustainability issues, including risks and opportunities, supported by examples of their work in action.
C4	Provide an overview of, or list, your corporate policies that address sustainability issues.
C5	Set out how your board and executives monitor strategic performance and goals.

ADDITIONAL

A1	Describe the composition of your board and executive team, including selection processes, areas of expertise, diversity and length of terms.
A2	Set out how you manage relationships with partners, including operated and non-operated joint ventures, contractors and suppliers.
A3	Describe how you utilise internal audits and self-assessment processes that are designed to assure the implementation of systems of internal control.
A4	Outline your assurance processes, including by third parties, and subsequent review by your management and board as they relate to sustainability reporting and other disclosures that cover sustainability issues.
A5	Provide details of how you take non-financial performance and targets into account within executive and / or employee remuneration.
A6	Outline your training and cultural awareness programmes for board and executive management related to sustainability issues.
A7	Describe training and other processes that inform your workforce about your code of conduct requirements or equivalent rules related to business ethics and behaviour.

GOV-2
Management systems

WHY THIS MATTERS

Management systems document a consistent set of requirements, processes and practices required by a company's assets and workforce to operate its business activities. The system continuously improves to reflect the accumulated knowledge, learning and experience of a company's human capital. This indicator provides information on the systems your company has in place, including standards, procedures and expectations that demonstrate that you effectively manage your activities with regard to sustainability issues, impacts, risks and opportunities.

SCOPE

You should describe your management system approach, covering a broad range of risks, impacts or threats, including those associated with:

- ethics and compliance;

- human rights;

- occupational health and safety;

- human capital / resources;

- environmental and social responsibility;

- climate change;

- process safety;

- quality, including product stewardship; and

- security, including cyber security.

Reported details may include:

- key elements of your system;

- accountability and resources for its delivery;

- areas of operation, activities and issues the system covers;

- risk assessment, mitigation and management processes;

- processes for achieving continuous improvement, including planning, execution, measurement, benchmarking, training and performance review; and

- approaches to meeting compliance with applicable external requirements, standards or guidelines.

Where appropriate, you should provide information on how your management system applies to entities such as non-operated joint ventures and contracted operations.

Where appropriate, you can refer to and discuss specific aspects of your management system in other sections of your report, for example, when discussing management of safety risks or environmental impacts.

INDICATORS

GOV-1
Governance approach

GOV-2
Management systems ▶

GOV-3
Preventing corruption

GOV-4
Transparency of payments to host governments

GOV-5
Public advocacy and lobbying

You can include specific examples or case studies to demonstrate how your management system is used. For example, you might explain how your management system holds managers accountable for assessing environmental and social impacts and then communicating any mitigation plans with local communities and stakeholders before starting major projects in new locations.

If relevant, you should explain how you have aligned your management systems with international standards, frameworks or guidance, such as the ISO standards [4], the International Finance Corporation (IFC) Performance Standards [5], or management system recommended practices from IPIECA, IOGP [2] or API [6].

REPORTING ELEMENTS

CORE

C1	Describe the structure and scope of your management systems related to sustainability issues, including ethics and compliance (including the arrangements for non-operated joint ventures).
C2	Discuss how your system helps you assess and address impacts, risks and opportunities and develop actions to mitigate negative and foster positive consequences.
C3	Describe your company-wide standards that set performance requirements for assets, including internal standards or external international / national standards that you follow.
C4	Describe how your leadership team supports your system at all levels, including how they demonstrate their commitment and how you foster a strong, positive culture throughout the organization.

ADDITIONAL

A1	Set out how you integrate continuous improvement within your management system.
A2	Describe the processes and tools you have in place to monitor, verify, validate and record the performance of your management system, including any external assurance and validation.
A3	Outline your relevant management system training programmes and activities.
A4	Discuss how the management system helps you engage with external stakeholders, including customers.
A5	Describe how the management system helps to improve asset design and integrity, including process safety and reduced environmental impact.

GOV-3

Preventing corruption

WHY THIS MATTERS

Prevention of bribery and corruption is an essential value for all employees and your business partners, including suppliers, contractors and other intermediaries, particularly for those representing your company when meeting government officials. This indicator provides an overview of your controls and other processes to manage employee and business partner compliance with your anti-bribery / anti-corruption policies and applicable laws.

SCOPE

The description of your approach to preventing corruption, including the giving or receiving of bribes, should extend to all level of employees in your company and to your business partners, including suppliers and contractors. You should refer to mechanisms and initiatives that promote your anti-corruption policies and programmes, including resources for raising awareness with employees and business partners.

The indicator can include descriptions of mechanisms for:

- reporting suspected violations, such as through a company hotline (see SOC-8 in Module 6 *Social*), referring to non-retaliation against 'whistle-blowing', supervisory reviews, and employee and third-party tip-offs;

- communication and action taken to encourage business partners to implement anti-corruption programmes;

- processes to monitor compliance with your anti-corruption policies and / or compliance such as codes of conduct or contractual obligations; and

- detecting, investigating and preventing bribery and corruption, for example, through internal controls, due diligence procedures and audits.

You may also report on the nature and content of anti-bribery and anti-corruption training programmes that you offer. For employees, this can include examples of the relevance and extent of training to specific types of work where management and staff are involved with government representatives or negotiating sales or purchases. The discussion can also be extended to awareness and training of contractors, suppliers and other business partners.

Your reporting can be supported by local case studies or examples to illustrate how you have implemented anti-corruption policies, communication and actions with your workforce or your business partners.

INDICATORS

GOV-1
Governance approach

GOV-2
Management systems

GOV-3
Preventing corruption ▶

GOV-4
Transparency of payments to host governments

GOV-5
Public advocacy and lobbying

REPORTING ELEMENTS

CORE

C1	Describe your governance and management approach, policies, codes of conduct and internal controls, related to prevention of bribery and corruption.
C2	Describe your employee awareness and training programmes.
C3	Discuss how your anti-corruption policies and due diligence procedures apply to your business partners, including suppliers and contractors.
C4	Outline your processes for reporting, review and follow-up of suspected non-compliances.

ADDITIONAL

A1	Describe the scope and content of your anti-corruption awareness, training or other programmes for contractors, suppliers or other business partners.
A2	Describe your participation and level of involvement in voluntary initiatives or international conventions related to bribery and corruption.
A3	Discuss the effectiveness of your policies and controls including remedial or enforcement measures introduced in response to corruption affecting your company or others.
A4	Discuss the inclusion of anti-corruption clauses, or specific language, in contracts with business partners.

GOV-4

Transparency of payments to host governments

WHY THIS MATTERS

Revenue transparency helps stakeholders hold governments and public authorities to account for the way they use the payments received through taxes and other agreements arising from oil and gas activities.

SCOPE

You should describe the policies and programmes you use to promote and achieve transparency of payments to host governments, particularly for countries where revenue transparency issues may be of particular concern. This should include:

- your participation in transparency initiatives, such as the EITI [3];

- the scope of your compliance as it applies to national and regional reporting mandates on publication of payments, such as those being implemented in the USA and European Union; and

- your adoption of any other standards or practices on transparency of payments.

When discussing EITI, you could also list the EITI-implementing countries where you have upstream operations and are reporting payments. In addition, you may include links to any EITI or other public reports that meet legal or other requirements for disclosure of payments to governments.

You may report on payment disclosures in response to government policy (or EITI commitments) including disclosure of contracts. You may directly disclose the payment data in your reporting or, alternatively, reference external disclosures by organizations that maintain the payment records. You may also report your payments to countries that are not yet subject to reporting mandates. You can provide payment information at different levels of detail.

You can consider reporting payment by type, for example, taxes, royalties, dividends, bonuses, fees, production entitlements, infrastructure development or other payments, or by the amount you have paid to individual government agencies.

You may also describe any additional transparency efforts you have made to inform communities and governments about the quantified economic value your company delivers over and above direct government payment obligations.

INDICATORS

GOV-1
Governance approach

GOV-2
Management systems

GOV-3
Preventing corruption

GOV-4
Transparency of payments
to host governments ▶

GOV-5
Public advocacy and
lobbying

REPORTING ELEMENTS

CORE

C1	Provide a general overview of your policies and programmes on revenue transparency.
C2	Describe the scope of your legal and policy mandates for government revenue reporting with which you are obliged to comply.
C3	Describe your participation in the EITI, where relevant, or any other voluntary reporting initiatives on revenue transparency.
C4	Disclose, or reference sources of disclosure for, your payments to host governments, where reporting is subject to governmental legal or policy mandates, or EITI requirements.

ADDITIONAL

A1	Report, by country, significant payments that do not have any reporting requirement.
A2	If applicable, include links to any EITI, or other public, reports that disclose payments to governments from your company.
A3	Provide information on further transparency, governance or anti-corruption efforts you have made to promote revenue transparency.
A4	Provide case studies that illustrate your transparency efforts with specific governments and communities.

GOVERNANCE AND
BUSINESS ETHICS

GOV-5
Public advocacy and lobbying

WHY THIS MATTERS

It is important to show how you are working to maintain stakeholder trust regarding the nature of your potential influence on sustainability issues. It is also helpful to clarify how public policy supports or challenges your strategy and stated positions on sustainability topics. This indicator discloses your approach and position on public advocacy, lobbying and political contributions.

SCOPE

You should describe key elements of your advocacy and lobbying activities related to sustainability issues. These may include:

- your overall stance on transparency and reporting for such activities;

- descriptions of priority public policy issues that you are advocating;

- data and information about money you paid for public advocacy and lobbying purposes.

- an explanation of how you report on political contributions. Where permitted, you can also report on the amount of money paid to:
  - › candidates, politicians and political parties; and
  - › individuals, organizations and institutions whose prime function is to fund political parties or their candidates.

- discuss your involvement with trade associations, giving examples to highlight the value of these relationships and the extent to which your views align, or differ, with those of the associations.

Since lobbying and political contributions definitions and legislation vary between countries, it can be helpful to explain how such differences apply to your contributions. In some countries, for example, disclosures on certain trade association memberships and fees are mandated by local authorities.

REPORTING ELEMENTS

CORE

C1	Describe your governance approach and management processes on advocacy and lobbying.
C2	Describe your approach to reporting political contributions, where applicable for your company.

ADDITIONAL

A1	Describe the alignment, or differences, between your business strategy and advocacy positions in relation to specific public policy issues or legislative initiatives.
A2	Provide examples to illustrate the way in which you implement your advocacy and lobbying approach in specific countries.
A3	Provide an overview of your participation in trade associations in relation to public policy positions on key sustainability issues such as climate change.

INDICATORS

GOV-1
Governance approach

GOV-2
Management systems

GOV-3
Preventing corruption

GOV-4
Transparency of payments to host governments

GOV-5
Public advocacy and lobbying

References, links and other sources

References with links

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Module 3

Climate change and energy
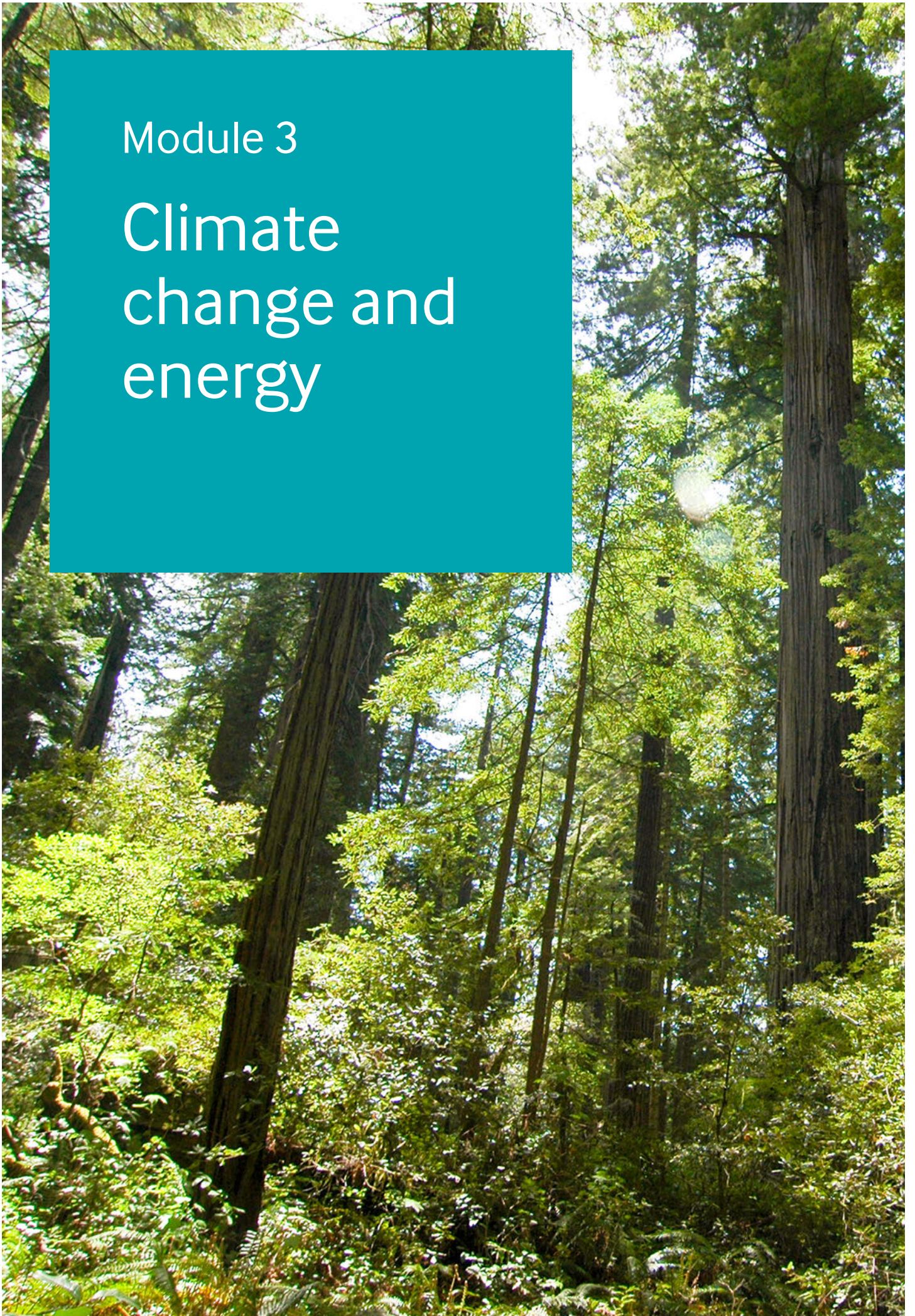
Introduction

Analyses from the Intergovernmental Panel on Climate Change (IPCC) have stated that since the industrial revolution, economic and population growth, coupled with the beneficial use of fossil fuels, have driven increases in anthropogenic greenhouse gas (GHG) emissions, contributing to global warming. In its Fifth Assessment Report [1] in 2014, the IPCC concluded that it is extremely likely that more than half of the global warming increase during the 40-year period to 2010 was caused by human activity and that about 78% of the anthropogenic GHG emissions were CO_2 derived from fossil fuel combustion and industrial processes [1].

In December 2015, almost 200 United Nations Framework Convention on Climate Change (UNFCCC) member states met in Paris [2] and agreed to combat climate change with a central aim of 'holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.' IPIECA welcomed the landmark Paris Agreement and, in 2016, published a paper titled *Exploring low emissions pathways: advancing the Paris puzzle* [3] which discussed the possible routes to transform the energy system over the course of this century. The paper highlights three common elements: efficiency and saving energy; reducing emissions from power generation; and deploying alternative low-emissions options in end-use sectors.

The *International Energy Agency (IEA) World Energy Outlook 2018* [4] stated 'Oil and natural gas are set to remain part of the energy system for decades to come' predicting, that oil and gas together will provide 48% of the total final energy demand in 2040 (based on IEA's Sustainable Development Scenario that includes delivering on the Paris Agreement). Thus, the industry is likely to continue to have a global role in supplying affordable, reliable energy that is essential for economic development, quality of life, healthy livelihoods and eradication of poverty. Equally, this role needs to support the transition to a lower carbon future.

INFORMED BY OTHERS – TCFD

In relation to public reporting, stakeholders have driven the development of several reporting frameworks that focus on climate-related disclosures (see references). One such initiative is the Task Force on Climate-related Financial Disclosures (TCFD) [5], a working group with representation from investors, banks and industry, set up by the Financial Stability Board. The TCFD's voluntary recommendations broaden the focus of financial reporting to include more forward-looking disclosures and decision-useful information on climate change-related governance, strategy, risk management and performance. The focus of the TCFD is to support mainstream financial reporting and, consequently, this Guidance on sustainability reporting is not intended to satisfy the recommended disclosures of the TCFD. However, this revision of the Guidance has taken into consideration TCFD's themes and terminology to assist companies who have chosen to follow the TCFD's recommendations for their public reporting.

Given this global role, there is increasing scrutiny of the way in which oil and gas companies adapt business models to align with a low carbon energy transition. Reflecting this growing interest, many companies are already reviewing the breadth and depth of their climate reporting within the context of their own business. Financial institutions – under pressure from their clients and regulators to demonstrate the climate-related impact and climate resiliency of their portfolios – are seeking access to consistent, transparent, comparable climate-related decision-useful information in reports.

In this edition of the Guidance, we have increased the focus on a number of climate-related areas. This includes increased emphasis on methane, recognizing its important role in responding to climate change risks in the short term. Other areas of growing importance include the transition to lower carbon energy sources, carbon capture and storage (CCS) application, the health of natural ecosystems, the application of offsets, fostering of energy efficiency and conservation, and the roles of natural gas and renewables.

Module 3 *Climate change and energy* supersedes and replaces the 2019 update of the IPIECA *Climate change reporting framework* [6] by incorporating the 10 topics and constituent elements of the framework into the following key points and indicators.

Key points to address

A. Governance: responsibilities, accountabilities, processes and assurance for managing climate change risks and opportunities.

    i. Your Board processes, including frequency, for board oversight of climate change issues. Refer to Board committees and any members of the Board or executive management with specific responsibilities and competences for managing climate change risks and opportunities.

    ii. Senior management roles and responsibilities related to assessment, management and monitoring of climate-related risks and opportunities. This can include specific positions, committees and organizational structures, including their relationship with the Board.

    iii. Your company's highest-level position or role with responsibility and accountability for managing climate change issues.

    iv. The nature and frequency of climate-based discussion at Board or senior management level. Example topics might include:

        a. strategy review, action plans, risk management;

        b. operating budgets, capital expenditures, acquisitions and divestments;

        c. objectives, goals and targets;

        d. performance monitoring;

        e. executive / management incentivization; and

        f. communication with shareholders and stakeholders.

    v. Your internal and / or external assurance approaches for GHG emissions and other applicable climate-related disclosures. If used, explain your rationale for seeking third-party assurance and whether it is mandatory, voluntary or a combination of both. If you use third-party assurance, set out its scope, including its boundaries, level and a link to your assurance statement, if applicable.

B. Strategy: positions and policies related to climate change related science, impacts, risks, opportunities, financial planning and resilience.

    i. Your climate change and energy positions, policies or principles, including the related risks and opportunities for your company. The significance of these risks and opportunities for society and ecosystems, and how you and society can address these through positions and policies on risk mitigation, adaptation, technology and energy transition.

    ii. Your views on future global energy demand and the supply mix in terms of addressing climate-related risks and opportunities. In terms of the timing and geographical spread of your activities, describe your views on specific risks and opportunities. This could include those related to government policy, carbon pricing mechanisms and energy markets, that could have a material impact on your business strategy, financial performance and asset values. Explain the process you use to determine these views.

    iii. Your strategy's resilience, taking into account different climate-related scenarios, including a 2°C scenario. This would cover 'energy transitions': the short-, medium- and long-term implications of shifting energy supply / demand and climate policy towards a lower-carbon economy. This could include actual or potential effects on your strategy, businesses, products and services, supply chain, business performance, financial planning and value, including a view on the future use of non-hydrocarbon energy sources.

C. Risk management: the processes used to manage transition and physical climate-related risks.

  i. Your risk management approaches and how they apply to climate-related risks. How you identify, assess and manage transition risk and physical climate-related risk, and how you integrate those processes into your overall risk management approach for existing operations and new projects. Include:

   a. sources of climate change-related risks and opportunities;

   b. investment evaluation and risk management approaches, such as scenario planning and / or proxy cost of carbon; and

   c. your approach to physical risks and adaptation to protect facilities and operations.

  Consider breaking down risks and opportunities by business or geography, if appropriate.

D. Metrics and targets: goals, measures and performance to evaluate progress in addressing climate-related risks and opportunities.

  i. The primary corporate metrics you use to assess climate-related risks and opportunities, in line with your strategy and risk management process.

  ii. Performance data (dating back long enough to allow trend analysis) should include GHG emissions, energy use and flared gas. Disclosures typically include Scope 1, Scope 2 and, as appropriate, Scope 3 GHG emissions (see CCE-4).

  iii. Your key commitments or targets to manage climate-related risks and opportunities, outlining timescales, indicators and progress (see CCE-2).

  iv. Historical Scope 1 and 2 GHG emissions performance and the relationship between changes in performance and your past strategy, acquisitions / divestments and planned mitigation initiatives (see CCE-4).

  v. Whether and if so, how, climate-related performance metrics and / or targets are incorporated within remuneration policies.

E. Mitigation and energy transition: activities, initiatives, technologies and regulatory programmes that address climate change-related risks and opportunities.

  i. Your overall approach to reducing CO_2 and methane emissions, and other GHG emissions, if significant. Include commentary on historical performance, planned activities and estimated costs.

  ii. Emission reduction projects on combustion / energy efficiency, flaring, venting and fugitive leaks. Additional initiatives could include:

   a. carbon capture and storage (CCS);

   b. carbon offsets;

   c. nature-based solutions, such as reforestation and enhanced forest management; and

   d. initiatives to improve help customers improve the efficient use of the company's products.

  iii. Your approach to existing or emerging GHG reduction regulatory programmes in terms of risks and opportunities. This can include participation in market-based systems such as emissions trading or offset schemes, or non-market-based systems defined by government policies.

iv. Information on existing or planned supply of lower carbon products, such as gas and alternative energy sources, including scale, geographic spread, technologies and timescales. You can discuss the impact on Scope 3 emissions in relation to your products in this context.

v. Application of technologies and / or research and development (R&D) investment that:

  a. reduces GHG emissions in oil and gas sector operations; and

  b. supplies lower or zero carbon energy and fuel products.

vi. The impact of climate-related risks and opportunities related to future technology and R&D investments, including quantification of the GHG reduction benefits that might be achieved.

F. Engagement and collaboration: with stakeholders, including advocacy and lobbying.

i. Relevant public policy engagement (see GOV-6 in Module 2 *Governance and business ethics*), as well as other significant voluntary initiatives and types of individuals or organizations you interact with on climate policy.

ii. Work conducted by research organizations on your behalf.

iii. Alignment of your engagement and advocacy with your internal climate change policy objectives.

iv. Collaborations, partnerships, initiatives with NGOs, universities, institutions and international organizations that address climate-related risks and opportunities.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

CCE-1

Climate governance and strategy

WHY THIS MATTERS

Communicating your governance approach allows investors and other stakeholders to build confidence in the company's capability to be part of the global energy transition and to meet climate change challenges. This includes addressing climate-related risks and opportunities in terms of market positions, policies and strategies, regulatory frameworks, and the influence of scenarios on future energy supply and demand.

SCOPE

This indicator provides a description of your principal positions and policies on climate-related risks and opportunities. In describing your stance, you can discuss your interpretation of different climate change scenarios, the significance of any impact on society and ecosystems and how climate-related risks should be addressed and opportunities be leveraged. In addition, you can describe the level at which your company sets the accountabilities for policy, positions and strategy, including board oversight and management review of climate-related issues.

You may also outline how you have applied scenario analysis to support strategic decision making and planning. You might consider a range of different climate-related scenarios, including a 2°C scenario, to help explain potential climate risks and opportunities. This process can also help you communicate your understanding of your strategic options for addressing these risks and opportunities.

Where government policy exists, you might also need to address GHG regulation in different countries or regions. You should outline your approach to GHG regulatory programmes, including participation in market-based mechanisms, such as emissions trading and offset programmes.

Where applicable, you might refer to other company publications and communication that relate to climate change science and scenarios, governance and policies, and your positions on regulations and market mechanisms. Where appropriate, you might also indicate how your policies and regulations apply to joint ventures or other commercial arrangements.

REPORTING ELEMENTS

CORE

C1 Describe your approach to governance and management of climate-related risks and opportunities, including board-level accountabilities and processes that allow related issues and impacts to be considered when making strategic business decisions.

C2 Report the highest-level position in your company that is accountable for policy and strategy on addressing climate-related risks and opportunities.

C3 Disclose your positions and any related policies that address climate-related risks and opportunities for society and ecosystems.

C4 Discuss the relationship between future energy supply / demand balances and your climate policy and strategy, including how the transition risk to lower-carbon energy may influence your asset base, business performance and value.

ADDITIONAL

A1 State your views on the relationship between public climate change policy and climate-related scenarios, including future energy supply / demand balances.

A2 Discuss your views and responses to approaches undertaken by governments, private sector and civil society to mitigate GHG emissions and adapt to climate-related risks.

A3 Describe how you address GHG emissions regulations, including any participation in market based systems and application of an internal carbon pricing mechanism for investment decisions.

A4 Outline your position and initiatives on GHG offset programmes, including specific examples or case studies of current and planned offset projects.

INDICATORS

CCE-1
Climate governance and strategy

CCE-2
Climate risk and opportunities

CCE-3
Lower-carbon technology

CCE-4
Greenhouse gas emissions

CCE-5
Methane emissions

CCE-6
Energy use

CCE-7
Flared gas

CCE-2

Climate risks and opportunities

WHY THIS MATTERS

To make their own judgements, stakeholders, particularly investors, need confidence and understanding about how you assess and address climate-related risks and opportunities. It is also helpful to clarify how you plan to manage these risks and opportunities to provide a basis for your strategic decisions, including risk mitigation of GHG impacts. This indicator describes your approach, including relevant plans, programmes, initiatives and activities for managing climate-related risks and opportunities, including GHG emission management.

SCOPE

This indicator covers the management of all significant corporate strategies and plans related to operational measures to tackle climate-related risks and opportunities, including:

- how you assess, prioritize and address climate-related risks and opportunities at both a corporate and operational level;

- context on historical emissions management and reduction performance;

- how you integrate climate-related risk and opportunity management into your long-term strategies and annual plans;

- how you describe the impact of climate-related risks, including the valuation of financial impact;

- climate-related targets and / or commitments;

- the relationship between your climate-related performance targets, incentives and reward, and

- description of planned activities and estimated costs, for example to:
  - reduce CO_2 and methane emissions;
  - reduce GHG intensity;
  - improve energy efficiency;
  - invest in renewables;
  - reduce impacts on, and enhancement of, carbon-rich habitats such as forests, mangroves and peat bogs;
  - reduce flaring;
  - increase use of cogeneration;
  - carbon capture and storage (CCS); or
  - help customers reduce the impact of / improve the efficient use of the company's products.

As noted in indicator CCE-1, scenario analysis may provide useful context (including methodology and benchmark used, e.g. IEA scenarios as well as assumptions, e.g. carbon price, oil price, demand trends) for outlining the climate-related risks and their potential impact and for communicating your strategic options to address risks and opportunities.

You might want to provide quantitative information, as outlined in indicators CCE-4, 5, 6 and 7, to demonstrate the effectiveness and performance of your strategies and plans in managing climate risks and opportunities.

Your narrative might refer to other company publications that provide more detail on your approach and activities for managing climate-related risks and opportunities.

REPORTING ELEMENTS

CORE

C1
Describe your general approach to managing climate-related risks and opportunities, including discussion on:
- identification and evaluation of risks and opportunities;
- incorporation of risks and opportunities are into business strategies and planning for existing operations and new projects;
- risks and opportunities related to energy transition;
- risk mitigation opportunities through nature based solutions; and
- physical climate-related risks, such as rising sea levels or flood risk.

C2
Outline your GHG emissions management strategy, including plans, commitments, investments and activities to mitigate GHG emissions within your operations.

C3
Explain how you assess, prioritize and manage methane risks and impacts as part of your overall GHG emissions management strategy.

C4
If you have quantitative GHG emission or energy-related targets, describe the:
- scope of your targets – total GHG, CO_2, methane, other GHGs, energy use, and / or flaring;
- type of targets (absolute or intensity);
- targets already underway or planned;
- approach used to measure progress towards these targets; and
- baseline period and timescale, along with progress towards meeting your targets.

ADDITIONAL

A1
Outline the tools and methodologies (including explicit description of underlying assumptions, e.g. carbon pricing, global policy development and associated temperature increases estimates) you use to manage climate-related financial risks and opportunities, such as stress testing, 'shadow' cost of carbon, or scenario planning.

A2
Outline your approach to incentivize the management of climate-related risks and opportunities and, if relevant, describe how you incorporate climate-related performance targets within remuneration for senior management and your workforce.

INDICATORS

CCE-1
Climate governance and strategy

CCE-2
Climate risk and opportunities

CCE-3
Lower-carbon technology

CCE-4
Greenhouse gas emissions

CCE-5
Methane emissions

CCE-6
Energy use

CCE-7
Flared gas

CCE-3

Lower-carbon technology

WHY THIS MATTERS

To meet future global energy demand, the world will need a variety of commercially viable energy sources, combined with energy efficiency. Stakeholders are seeking information that enables greater understanding of the technological advances needed for the energy transition. This indicator helps you report on your company's activities and plans on research initiatives or projects to apply technology that aim to reduce the carbon footprint of your operations and products, including the use and / or supply of lower-carbon energy such as alternative energy sources.

SCOPE

This indicator covers activities related to:

- lower-carbon energy derived from fossil fuels but having low or zero CO_2 impacts; and

- alternative energy sources that are non-fossil fuel based, including renewable sources.

When reporting your plans and activities you might include:

- research, development and application of lower and zero-carbon and alternative energy solutions;

- collaboration and participation in technology programmes with third parties;

- production of lower-carbon / alternative / renewable energy, either for internal use or sale, reported by source;

- development of alternative forms of transportation, such as vehicle electrification;

- if producing biomass or biofuel energy, a breakdown by source. You might also discuss associated material issues, such as lifecycle assessment of carbon reductions (considering all carbon emission inputs and outputs from initial production through transportation, storage and eventual use on an energy equivalent basis), direct and indirect land-use changes, water use, impact on air quality, food and social issues. Where appropriate, include any third-party certification systems;

- technology development and emission reductions from any relevant carbon capture and storage (CCS) projects that are planned, under construction or already operational;

- advanced technologies that you offer or supply as services that reduce CO_2 impacts though improved efficiency, such as for operations, logistics, maintenance and transportation; or

- management of social and / or environmental issues associated with deployment of alternative energy technologies.

BASIS

This indicator can have both qualitative and quantitative aspects as well as case studies to demonstrate progress at a local level. When reporting alternative / renewable energy production, the preferred unit is gigajoules and data should be consolidated within your reporting boundary using the 'operational approach' (see *Detailed guidance on developing a reporting boundary* in Module 1 *Reporting process*).

REPORTING ELEMENTS

CORE

C1	Describe how you introduce and apply technologies that reduce CO_2 emissions, that relate to: • operations (Scope 1); • imported electricity and steam (Scope 2); and • as applicable, consumer use of products (Scope 3).
C2	As applicable, discuss your approach to supply of lower-carbon and / or alternative energy, including descriptions of relevant operational activities, plans or projects. If relevant, include: • data on amount and type of energy supplied; and • management of any associated social or environmental impacts.

ADDITIONAL

A1	Discuss your technology outlook on the transition to lower-carbon and renewable energy solutions, including any technology investment plans and the impact of technologies on energy supply and demand.
A2	Describe your initiatives and plans to develop or implement CCS technologies.
A3	Disclose your engagement with third-party institutions or programmes to promote lower-carbon technology development and application.
A4	Report the amount of alternative energy generated for sale or for internal use.
A5	Describe the potential GHG emissions reduction benefits that might be achieved by applying the technologies that you are investigating or piloting.
A6	Report on amounts of CO_2 sold as product, used for enhanced oil recovery, or captured and sequestered from CCS technologies.
A7	Report on use of renewable energy bought from third parties, such as renewable energy purchased from a utility supplier.
A8	Describe new investments, operational or capital, or initiatives, in lower-carbon transport technologies, including vehicle electrification. Provide information on benefits, including reduction in Scope 3 emissions.
A9	If your company is involved in nuclear energy activities, describe them and report on nuclear energy produced, used or traded.

INDICATORS

CCE-1
Climate governance and strategy

CCE-2
Climate risk and opportunities

◄ **CCE-3**
Lower-carbon technology

CCE-4
Greenhouse gas emissions

CCE-5
Methane emissions

CCE-6
Energy use

CCE-7
Flared gas

DEFINITIONS

- **Alternative energy:** energy derived from non-fossil fuel sources, including renewables such as wind and solar. Nuclear energy can be included as an alternative fuel.
- **Renewable energy:** energy sources that are constantly renewed by natural processes. These include non-carbon technologies such as solar energy, hydropower and wind, as well as technologies based on biomass. Lifecycle analyses are required to assess the extent to which biomass-based technologies may limit net carbon emissions.
- **Biofuel:** fuel produced from organic matter produced by plants. Examples of biofuels include alcohol (from fermented sugar), black liquor from the paper manufacturing process, wood, palm and soybean oil.
- **Biomass:** total dry organic matter or stored energy content of living organisms. Biomass can be used for fuel directly by burning it (e.g. wood), indirectly by fermentation to an alcohol (e.g. sugar) or extraction of combustible oils (e.g. soybeans).

CCE-4

Greenhouse gas emissions

WHY THIS MATTERS

Most oil and gas industry operations emit greenhouse gas (GHG) emissions, contributing to global atmospheric GHG concentrations. GHG emissions are also generated by customer use of sold fuels and other products. This indicator demonstrates how your company measures and monitors GHG emissions, including CO_2 and methane, from combustion and other processes.

SCOPE

The following scope summarizes key aspects of the IPIECA / API / IOGP *Petroleum industry guidelines for reporting greenhouse gas emissions* [7], which are recommended for estimating, accounting and reporting GHG emissions in the industry and should be referred to for more detailed guidance on this indicator.

Oil and gas companies should consider including, if significant, the seven species of GHGs listed by the IPCC:

- carbon dioxide (CO_2);

- methane (CH_4);

- nitrous oxide (N_2O);

- hydrofluorocarbons (HFCs);

- perfluorocarbons (PFCs);

- sulphur hexafluoride (SF_6); and

- nitrogen trifluoride (NF_3).

For oil and gas operations, CO_2 and CH_4 are usually the most significant components of GHG emissions. N_2O is emitted in very small quantities from the combustion of fossil fuels, and its GHG contribution is usually insignificant compared to CO_2. Depending on your operations, other GHGs, such as HFCs and PFCs used in refrigeration and SF^6 used in electrical equipment, may contribute significantly relative to the total GHG emissions from your operations. NF_3 is normally associated with emissions from electronics manufacturing and is not, therefore, expected to be significant for oil and gas reporting.

For each GHG you determine to be a significant contributor to total emissions, it is good practice to report annual emissions in metric tonnes and / or the CO_2 equivalent (CO_2e). The CO_2e should be calculated in accordance with published global warming potential (GWP) factors. Note that, at present, the preferred source for these factors for this indicator is the IPCC's *Fourth Assessment Report* [8] and that for consistent reporting of CO_2e they are based on GWP-100[1]. Table 1 provides an example of GHG annual reporting based on the reporting elements of this indicator.

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[1] The 2010 version of the Guidance recommended use of the GWP factors in the IPCC's 1995 publication, Second Assessment Report (SAR). This recommendation has been revised to use of the GWP-100 factors (time horizon of 100 years) from the IPCC's 2007 publication, Fourth Assessment Report (AR4) that, inter alia, increases the GWP for methane from 21 to 25, which is of significance for this indicator. In 2013 the IPCC issued its Fifth Assessment Report (AR5) with further modifications to GWP factors including methane, for which two revised, alternative, factors of 28 or 34 are provided, depending on whether carbon-cycle feedbacks are taken into account. Because of this additional complexity, and because national and international inventories have generally not yet taken into account the GWP factors in AR5, this Guidance recommends use of the AR4 factors in order to maintain consistency in reporting with prior data and transparency on performance. The recommendation of which IPCC GWP factors to use for sustainability reporting will continue to be reviewed. It is good practice for companies to state the source of GWP factors used to report GHG emissions in their reports.

GHG emissions from all your business activities should be included:

- combustion emissions, such as fuel use in gas compression, power generation, heating, coke burn, transport;

- flaring and venting;

- process emissions, such as vessel loading, tank storage and flushing, glycol dehydration, sulphur recovery units, hydrogen production;

- fugitive emissions, including piping and equipment leaks; and

- non-routine events, such as pipeline maintenance and equipment, gas releases related to safety events, equipment maintenance.

GHG emission estimates should include stationary and mobile sources from your business activities:

- Stationary sources should include equipment at well sites, production facilities, refineries, chemical plants, terminals, fixed site drilling rigs and office buildings.

- Mobile sources should include marine vessels transporting products, tank truck fleets, mobile drilling rigs, and moveable equipment at drilling and production facilities.

The GHG Protocol Corporate Accounting and Reporting Standard [9], updated in 2015, is a partnership between the World Resources Institute (WRI) and the World Business Council on Sustainable Development (WBCSD). The standard classifies GHG emissions as either direct or indirect based on three categories; Scope 1, 2 and 3:

- Scope 1 emissions are reported as Direct GHG emissions from equipment or other sources owned (partly or wholly) and / or operated by the company. For increased clarity when reporting Direct GHG emissions, those Scope 1 emissions associated with energy sold to others can be reported separately as Direct emissions from exported energy.

- Where an operation purchases energy already transformed into electricity, heat or steam, the GHGs emitted to produce this energy are Scope 2 and reported as Indirect GHG emissions from imported energy. The 2015 update of the GHG Protocol distinguishes between two calculation approaches, 'location' and 'market based' for Scope 2 emissions and it is helpful for companies using this standard to highlight which method is used in their reporting.

- You can report Scope 3 emissions as Other indirect emissions, which refer to GHG emissions related to your company's value chain (see Module 1 *Reporting process*). The GHG Protocol supplemented its standard with its 2011 publication of the *Corporate Value Chain (Scope 3) Accounting and Reporting Standard* [10]. Of the 15 categories of Scope 3 emissions defined in this standard, Category 11 *'Use of sold products'* is the most relevant to the oil and gas industry. There is a growing stakeholder interest related to Scope 3 disclosures. In 2016, IPIECA published *Estimating petroleum industry value chain (Scope 3) greenhouse gas emissions* [11] to provide additional oil industry methodology guidance for the 15 categories.

If significant, ozone-depleting gases such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) can be included in your GHG emissions reporting. Although these substances are now included in the GHGs listed by the IPCC in AR5 [1], they are less likely to be significant for your company as the 1987 Montreal Protocol successfully phased out almost all supplies of these ozone depleting gases.

INDICATORS

CCE-1
Climate governance and strategy

CCE-2
Climate risk and opportunities

CCE-3
Lower-carbon technology

CCE-4
Greenhouse gas emissions

CCE-5
Methane emissions

CCE-6
Energy use

CCE-7
Flared gas

INDICATORS

BASIS

Emissions are reported quantitatively at the company level as CO_2e (reflecting the global warming potential of all the GHG species) and as emissions of the individual gases expressed in mass and / or CO_2e. Measurement units are:

- GHG emissions per species (i.e. when reporting individual gases): metric tonnes and / or metric tonnes CO_2 equivalent (where CO_2e = metric tonnes of the GHG species of interest multiplied by its GWP relative to CO_2).

- Total GHG emissions (direct or indirect): metric tonnes CO_2 equivalent (where CO_2e = the sum of the emissions for each GHG species multiplied by its respective GWP relative to CO_2, in metric tonnes); and

Clearly identify the specific GHG species included in your emission estimates and the GWP for each species.

When reporting Scope 3 emissions related to consumer use of oil and gas products, you should state the types of product, such as crude oil, gas or other production, fuels and other refinery outputs or direct retail sales, used to estimate the GHG emissions and also state the source of emission factors applied.

The GHG protocol does not address carbon capture and storage (CCS) or use of CO_2. You can report separately on the amount of CO_2 sold as product, used for enhanced oil recovery, or captured and stored.

Data should be consolidated within your reporting boundary using either the 'operational control' or the 'equity share' approach, or both approaches (see *Detailed guidance on developing a reporting boundary* in Module 1 *Reporting process*). You can also consider the alternative 'Financial control' approach. Reporting boundaries and these data consolidation approaches are defined and discussed in more detail in Chapter 3 of the IPIECA / API / IOGP *Petroleum industry guidelines for reporting greenhouse gas emissions* [7]. You should clearly state the consolidation approaches that you have used. If non-operated joint ventures are significant in terms of climate change risks and opportunities for your organization, it should be noted that these emissions are, by definition, excluded under the operational control approach but included under equity share or financial control reporting (see also Module 1 *Reporting process* guidance on *Joint venture reporting*.)

REPORTING ELEMENTS

CORE

C1	Report your company-wide direct GHG emissions (Scope 1), using your preferred approach (operational, equity share or other) to include: • direct CO_2; • direct CH_4; and • direct other greenhouse gases.
C2	Report your company-wide indirect GHG emissions related to imported energy (Scope 2), separate from direct emissions, using the same approach as for C1.
C3	Report your GHG emissions, disaggregated by business activity. For example, oil and gas production, refining.
C4	Report your GHG emissions intensity, company-wide and, if appropriate, disaggregated by business activity.

ADDITIONAL

A1	Report your company-wide direct GHG emissions (Scope 1), using both operational and equity share approaches.
A2	Report your company-wide indirect GHG emissions related to consumer use of your oil and gas products (GHG Protocol, Scope 3, Category 11), as appropriate.
A3	Provide a breakdown of major source categories for both CO_2 and CH_4 emissions. For example, combustion (stationary and mobile equipment), flaring, venting, process / fugitive leaks and product transport.
A4	Emissions that relate to activities of special interest to your stakeholders, such as oil sands, can be noted separately if these represent a substantial portion of your GHG profile.
A5	Separately report substantial direct GHG emissions associated with the cogeneration of heat and power, including information on emissions avoided through cogeneration.
A6	Separately report substantial direct GHG emissions related to the generation of energy exported.
A7	Report other Scope 3 categories of indirect GHG emissions as listed within the GHG Protocol.

A note on reporting activity and intensity data for element C4

When reporting emissions by activity and intensity for element C4, use of a consistent normalization factor will allow performance comparison between companies. For intensity disclosures reported by activity:

- For upstream activities, the IOGP annual Environmental performance indicators data series [12] reports use consistent environmental data collection definitions that are recommended. This requires hydrocarbon production to be reported in thousands of tonnes based on the gross hydrocarbon production at the wellhead. Production per thousand barrels of oil equivalent may also be disclosed when seeking consistency with the company's statutory annual reporting disclosures.

- Annual refinery throughput per thousand tonnes is a consistent normalization factor for downstream refining operations.

- Annual production per thousand tonnes is generally employed for petrochemical facilities.

- You may also disclose intensity measures based on more complex indices that more accurately account for differences in operational activities and facilities. Such indices can provide more advanced intensity factors , e.g. Solomon Associates´ Utilized Equivalent Distillation Capacity (UEDC™) [13], which have been established for downstream refining operations. Advanced factors for GHG and Energy intensity are the subject of work by IOGP to investigate applicability to upstream activities.

In general, you should report emissions at least annually together with data from past years to show performance trends and state a base year against which you are assessing that performance. It is also good practice to indicate the basis for the methodology you have used to report Scope 1 and 2 emissions data (e.g. the GHG Protocol, IPIECA / API / IOGP or other). Table 3.1 provides an example of how a company might record GHG emissions performance over five years, to include activity and intensity data, as well as energy use (see CCE-6) and flaring data (see CCE-7).

INDICATORS

CCE-1
Climate governance and strategy

CCE-2
Climate risk and opportunities

CCE-3
Lower-carbon technology

CCE-4
Greenhouse gas emissions

CCE-5
Methane emissions

CCE-6
Energy use

CCE-7
Flared gas

INDICATORS

CCE-1
Climate governance and strategy

CCE-2
Climate risk and opportunities

CCE-3
Lower-carbon technology

CCE-4
Greenhouse gas emissions ▶

CCE-5
Methane emissions

CCE-6
Energy use

CCE-7
Flared gas

Table 3.1: Example table of a company's GHG emissions-related performance data

IPIECA INDICATOR	2020	2021	2022	2023	2024
Total GHG emissions, absolute (metric tonnes CO_2e)					
Upstream					
Downstream					
Chemical					
CO_2					
Methane					
Other greenhouse gases					
Direct emissions (Scope 1)					
Indirect emissions (Scope 2 and Scope 3, as appropriate)					
Total GHG emissions, intensity (metric tonnes CO_2e / throughput or production)					
Upstream					
Downstream					
Chemical					
Energy use (gigajoules) (see CCE-6)					
Hydrocarbon flaring (metric tonnes) (see CCE-7)					

DEFINITIONS

- **Direct GHG emissions:** total GHGs emitted from sources at a facility owned (partly or wholly) and/or operated by the company.

- **Indirect GHG emissions from imported energy:** GHG emissions that occur at the point of energy generation (owned or operated by a third party) for electricity, heat or steam bought by your company for use at your facilities.

- **Direct GHG emissions from exported energy:** GHG emissions related to energy production in the form of electricity, heat or steam that you sell to a facility owned or operated by a third party. This is a subset of direct GHG emissions.

- **GHG intensity:** GHG emissions divided by the appropriate normalization factor for the business segment. This metric can be useful in comparing performance within a company's business segments.

- **Direct GHG emissions from cogeneration:** GHG emissions related to the production of electricity and steam in cogeneration (simultaneous production of power and useful heat). This subset of direct GHG emissions typically results in a reduction of GHG emissions from a public utility.

- **Other indirect emissions:** emissions that are not covered by Scope 2 and are not the direct result of your activities. Examples include emissions from the manufacture of purchased raw materials, such as hydrogen or steel, emissions from third-party vehicles, or emissions from customer use of your fuel products.

CCE-5
Methane emissions

WHY THIS MATTERS

Methane is what is known as a short-lived climate forcer (SLCF) with a significantly higher global warming potential (GWP) than CO2. Therefore, industry action on methane offers an important opportunity to address the overall challenge of limiting the impact of GHG emissions over a more immediate period. Companies throughout the industry are contributing to such action by identifying, monitoring and reducing their methane emissions, while participating in industry initiatives to develop and introduce improved measurement and mitigation technology. This indicator provides an opportunity to overview your plans and progress to assess and mitigate methane emissions from your operations, including participation in collaborative initiatives.

SCOPE

Your report should provide an overview of your company's strategic management of methane including, for example, your top priorities for estimating or quantifying and mitigating emissions, the reduction technologies you use for methane and / or volatile organic compounds, the impacts of government policy or regulation, participation in collaborative initiatives, and contributions to advancing the understanding of methane science.

You should provide specific information in the following areas:

- Measurement and monitoring: describe how you identify methane sources and estimate or quantify their emissions.

- Risk assessment and mitigation plans: outline how you assess methane-related risks and explain how you incorporate your mitigation plans, including training, into facility design and construction, operations, maintenance, retrofit and decommissioning.

- Fugitive emissions: describe the approaches you have taken to identify, quantify and eliminate fugitive emissions. Indicate the scope and frequency of application, such as continuous monitoring, leak detection and repair (LDAR) or aerial / atmospheric survey techniques.

- Science and technology: describe innovative activities that aim to measure and reduce methane emissions more effectively or efficiently across all your operational activities and contribute to industry and stakeholder understanding of methane science.

Your estimation and mitigation of methane emissions related to flaring may be reported within indicator CCE-7 as part of your company's overall plans and progress to reduce operational flaring.

BASIS

Qualitative information should be supported by quantitative data. Total methane emissions should be consistent with those reported as Scope 1 and 2 emissions for indicator CCE-4 and reported in metric tonnes of methane and / or CO_2 equivalent (CO_2e). When reporting in CO_2e, a GWP of 25 is recommended for consistency with that used in CCE-4, which is based on methane's relative impact over a 100-year timescale as stated in the IPCC's *Fourth Assessment Report — AR4 2007* [8] (see also footnote in CCE-4).

INDICATORS

CCE-1
Climate governance and strategy

CCE-2
Climate risk and opportunities

CCE-3
Lower-carbon technology

CCE-4
Greenhouse gas emissions

CCE-5
Methane emissions ▶

CCE-6
Energy use

CCE-7
Flared gas

For clarity when discussing emissions reduction performance, methane emissions may be broken down by source and business activity. The matrix below for reporting emissions and / or emission intensity might be useful. You may use different categories to better characterize your operations.

	ENERGY/ COMBUSTION	FLARING	VENTING	FUGITIVE EMISSIONS	OTHER
Exploration					
Onshore production					
Offshore production					
Coal bed methane					
LNG processing and shipping					
Refining					
Petrochemicals					
Distribution (natural gas / products)					
City gate (natural gas end-user transmission)					

REPORTING ELEMENTS

CORE

C1
Describe your approach to managing methane emissions, including:
- responsibilities for management of methane-related climate issues.
- risk assessment and mitigation plans; and
- direct or estimated measurement and monitoring methods;

C2
Discuss your performance in managing methane emissions (as reported in CCE-4) by source and activity in terms of total absolute emissions and emission intensities.

ADDITIONAL

A1
Outline the scope, timescales and progress of any methane emission reduction targets (absolute or intensity).

A2
Describe efforts that contribute to technology innovation that help assess or reduce methane emissions.

A3
Describe company participation in, and adoption of, collaborative industry initiatives to advance scientific understanding or technology development to address methane emissions.

A4
Provide case studies of methane measurement or reduction / recovery initiatives, including cost benefits.

DEFINITIONS
- **Short-lived climate forcers (SLCF):** atmospheric pollutants which have a greater greenhouse potency than carbon dioxide but persist in the atmosphere for a shorter period. SLCFs primarily include methane and black carbon, as well as gases such as hydrofluorocarbons (HFCs).

CCE-6

Energy use

WHY THIS MATTERS

Energy efficiency is a key sustainability goal. Demonstrating a clear understanding of energy consumption and resource efficiency also supports commensurate opportunities to mitigate CO_2 emissions. This indicator discloses the total quantity of energy consumed by your operations and information on your related efficiency measures for your oil and gas operations and other business activities.

SCOPE

You should state the total energy used to operate your facilities and equipment. This includes any energy your operations produce and use, as well as imported energy (e.g. electricity, heat and steam). To reflect resource use, energy is measured and reported as primary energy, i.e. the energy content of the hydrocarbon fuels or other sources used to produce the energy ultimately consumed as heat, steam or electricity by the company's operations. The following categories of energy – direct, imported and exported – should all be measured and reported as primary energy.

Direct primary energy results from self-generation of mechanical power, electricity, heat or steam in your operations, as well as in office buildings, marine vessels, trucks, or other stationary or mobile equipment under your operational control. Examples of energy-consuming equipment include boilers, fired heaters, waste incinerators, gas turbines, gas engines and diesel engines. Direct energy use is a measure of the energy content of the fuels or other energy sources used to produce the power or heat generated directly at the facility.

Direct primary energy should include combustion of fuels, whether produced or purchased by you.

Energy from fuel combustion should be determined as follows:

- Preferred: calculated based on the fuel volume consumed and the fuel energy content of the fuels used to generate the required energy. Calculation may be carried out by total fuel consumed – if the same fuel is used by all energy sources – or by source if fuel types vary. Use of 'lower heating value' is recommended because this reflects the amount of useable energy consumed and its use will promote a consistent reporting basis. Use of 'higher heating value' in place of 'lower heating value' will increase the reported energy consumption by up to 10%.

- Alternative: estimate based on the design energy consumption specifications associated with various processing equipment, augmented with runtime or throughput information if available.

You should include on-site generation of non-fossil energy, sources of electric power or other non-combustion energy sources in your calculations.

Exported energy is a subset of the direct primary energy sold or otherwise exported from your operations for use by others. It includes energy losses from your own power generation equipment.

This indicator quantifies the energy used by your operations and, therefore, excludes exported energy not available to support on-site operations. If your company has significant export contributions from power plants or cogeneration plants, you may choose to report energy use related to generation of exported power separately to provide a clearer picture of overall resource use.

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Energy use

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Flared gas

Imported energy should reflect the energy content of the fuels that a supplier has used to produce electricity, heat or steam imported by you. This approach is used to reflect the use of primary energy resources. For example, imported energy derived from a thermal power generation plant would be the primary energy content of the fuel combusted by the provider to produce the electrical power received by the company's facility. Imported energy takes into account the efficiency loss during the transformation of fuel combusted at the power plant into electricity, heat or steam.

Imported energy is calculated by using the purchased records of electricity, heat or steam, and then using efficiency factors to convert back to the energy content of the fuels or energy sources. For purchased electricity, the imported electricity is converted to an estimate of the energy actually used by applying a local 'grid factor' that reflects the average thermal efficiency (i.e. energy content of the fuel versus energy produced) for the mix of electrical generation facilities providing electricity to the local electrical grid. For purchased heat or steam, efficiency factors can typically be obtained from the supplier.

In the absence of efficiency or grid factors, or specific information from the energy provider, it is possible to use published grid factors such as those provided by the 2009 API *Compendium of Greenhouse Gas Emission Estimation Methodologies for the Oil and Natural Gas Industry* [14] or the US EPA eGRID factors [15] or other sources available in the country of operation. Alternatively, it may be necessary to use published conversion factors and information on the type of generating unit supplying the energy. In the absence of local or regional information, the following efficiency factors can be used for combustion-based energy sources:

- energy content of the fuel used to generate the electricity = electricity purchased / received in gigajoules (GJ) divided by 0.38;

- energy content of the fuel used to generate the steam = steam purchased / received in GJ divided by 0.8.

The factors provided are conservative values to account for efficiency losses during generation and transportation of power but do not reflect the efficiency of the most recent power generation technology. If imported electricity comes solely from non-combustion and non-nuclear generation (such as wind, hydroelectric, wave, tidal power) there is no need to apply an efficiency factor; simply report the imported energy that you purchased.

Total energy use reported should include direct energy and imported energy but exclude exported energy to quantify energy consumed by your operations:

> Total energy use = own energy generated + imported energy − exported energy

Fossil fuel energy-related emissions to the atmosphere are included within indicators CCE-4 and ENV-5 in Module 4 *Environment*.

OUT OF SCOPE

The energy content of flared or vented gas should be excluded from total energy use estimates. Although these do reflect loss of energy resources, they do not reflect energy use required for production or manufacturing of products. These resource losses are covered by a separate metric (see CCE-7).

BASIS

Energy data should be consolidated within your reporting boundary using the 'operational control approach'. You should report in gigajoules (one British Thermal Unit [BTU] = 1055 joules; 1 kilowatt-hour (kWh) = 0.0036 gigajoules).

Energy use data should be consolidated within your reporting boundary using the 'operational control approach {see *Detailed guidance on developing a reporting boundary* in Module 1 *Reporting Process*)

As noted for indicator CCE-4, when reporting energy use intensity by activity for reporting element A2, you should, where possible, aim to use a consistent denominator / normalization factor to allow performance comparison between companies. Recommended normalization factors are provided in Module 1 *Reporting process*, as well as CCE-4. For reporting element A2, you may also disclose intensity measures based on more complex indices that more accurately account for differences in operational activities and facilities (e.g. Solomon Associates' Energy Intensity Index) [13]. Such advanced factors for GHG and energy intensity are the subject of work by IOGP to investigate applicability to upstream activities.

REPORTING ELEMENTS

CORE

C1	Report your company's total energy use.
C2	Discuss your initiatives and progress towards improving energy efficiency and consuming less energy. For example, many companies are producing energy on site and using combined heat and power (also known as cogeneration) plants to improve energy efficiency.

ADDITIONAL

A1	Report any exported energy.
A2	Report energy intensity by business activity, such as oil and gas production, refining.
A3	Discuss progress in managing energy consumption through your use of energy-use indices, comparing current energy use per unit product produced to a historical reference point.
A4	For refineries and chemical plants that use indices to account for facility-specific infrastructure and operational conditions to provide energy performance comparison, report on progress of energy-use management based on the indices.
A5	Report on your initiatives to promote efficient customer use of energy.

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CCE-1
Climate governance and strategy

CCE-2
Climate risk and opportunities

CCE-3
Lower-carbon technology

CCE-4
Greenhouse gas emissions

CCE-5
Methane emissions

◀ **CCE-6**
Energy use

CCE-7
Flared gas

DEFINITIONS

- **Total energy use:** own energy generated + imported energy - exported energy.
- **Own energy generated:** energy resource consumption by a facility or its equipment, expressed as the primary energy needed to produce the power or heat required. This includes the energy content of self-generated and purchased fuel used for energy generation, as well as the energy from other renewable (e.g. wind, solar) and non-renewable sources, but excludes the energy content of flared or vented gas.
- **Imported energy:** amount of primary energy required to produce purchased power, most typically as electricity, heat or steam.
- **Exported energy:** amount of direct primary energy exported for use by others, most typically as electricity, heat or steam.
- **Energy intensity:** total energy use divided by the appropriate normalization factor for the business segment (e.g. production volume, refinery throughput).

CCE-7
Flared gas

WHY THIS MATTERS

Although flaring of natural gas is gradually declining, billions of cubic meters are flared annually at oil production sites around the globe, which reduces direct emissions of methane but also releases CO_2 to the atmosphere and results in the loss of energy resources.

SCOPE

This indicator discloses the quantity of hydrocarbon gas flared to the atmosphere from your operations and your approach to reduction measures. Gas flare systems can serve two purposes: they are an essential safety mechanism in many petroleum operations and, when flaring associated gas, they allow a company to dispose of gas when no gathering facilities are available.

Sources and situations that may feed gas into flare systems for safety can include but are not limited to:

- pressure relief valve systems you use to prevent overpressure of equipment;

- emergency depressurizing systems you use for safe plant management;

- operations during plant start-ups and shutdowns;

- tank storage overhead vapours, such as filling and breathing losses;

- glycol dehydrators;

- solution gas from separators or flash tanks at crude oil batteries, terminals or other production facilities;

- well testing, especially at recently drilled wells in frontier areas;

- well completion and clean-up operations where flaring is necessary for well bore and reservoir clean-up;

- blow-down and pigging operations on gas gathering or other pipeline systems;

- blow-downs of vessels, piping, gas compressors or other equipment during maintenance; and

- vessel and tank truck loading emissions, such as the displacement of vapours during tanker loading.

You should report the total quantity of hydrocarbon gas that you send to operational flare systems at a facility. This should include routine flaring operations as well as any non-routine / safety flaring events. Reported flared gas should include purge gas, pilot light fuel and assist gas.

Your calculation of flared gas should be based on the composition of the gas stream involved and, if significant, should exclude the quantity of non-hydrocarbons, such as CO_2, water, hydrogen and nitrogen. In the absence of measured gas composition data, you should apply engineering estimates.

For most oil and gas industry operations, venting of hydrocarbons represents a minor resource use and related emissions are effectively covered by indicator CCE-4 and by the volatile organic compounds (VOC) metric under indicator ENV-5 in Module 4 *Environment*.

If gas venting is significant, you should report the quantity of vented hydrocarbon gas separately.

BASIS

Quantitative reporting uses units of metric tonnes of hydrocarbons flared. Reporting in units of mass is encouraged because this provides a more consistent and comparable measure of product loss.

When reporting on a volume basis use standard cubic metres (Sm^3) or alternatively standard cubic feet (SCF), which is commonly used in industry operations and may be better understood by some audiences. When reporting volume, specify units used and the temperature / pressure bases for the standardization.

Flared gas data should be consolidated within your reporting boundary using the 'operational control approach' (see *Detailed guidance on developing a reporting boundary* in Module 1 *Reporting Process*).

Data should be consolidated for all operational activities that contribute significantly to your total flared gas.

You should determine significance in terms of geographic locations / regions (see *Glossary*).

REPORTING ELEMENTS

CORE

C1	Report the total quantity of hydrocarbon gas flared from your operations.
C2	Indicate geographical locations of significant flaring.
C3	State any commitments or targets you have set that relate to flaring, including collaboration with cross-industry initiatives.
C4	Report contribution of flaring to your total GHG emissions in CO_2e.
C5	Describe your current and future flare reduction activities, including long-term reduction improvements versus short-term operational fluctuations.

ADDITIONAL

A1	Separately report hydrocarbon gas flared for each relevant business activity, such as oil and gas production, refining.
A2	Report flaring by type, such as routine and non-routine flaring, to convey the causes of flaring and indicate areas for operational improvement.
A3	Separately report vented gas if hydrocarbon venting represents a substantial portion of your resource use.

DEFINITIONS
- **Flared gas:** total mass (or volume) of hydrocarbons directed to operational flare systems, where the hydrocarbons are consumed through combustion.
- **Routine flaring:** gas flared during normal oil production operations in the absence of sufficient facilities or amenable geology to re-inject the produced gas, utilize it on-site, or dispatch it to a market.

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Climate governance and strategy

CCE-2
Climate risk and opportunities

CCE-3
Lower-carbon technology

CCE-4
Greenhouse gas emissions

CCE-5
Methane emissions

CCE-6
Energy use

CCE-7
Flared gas

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Module 4

Environment
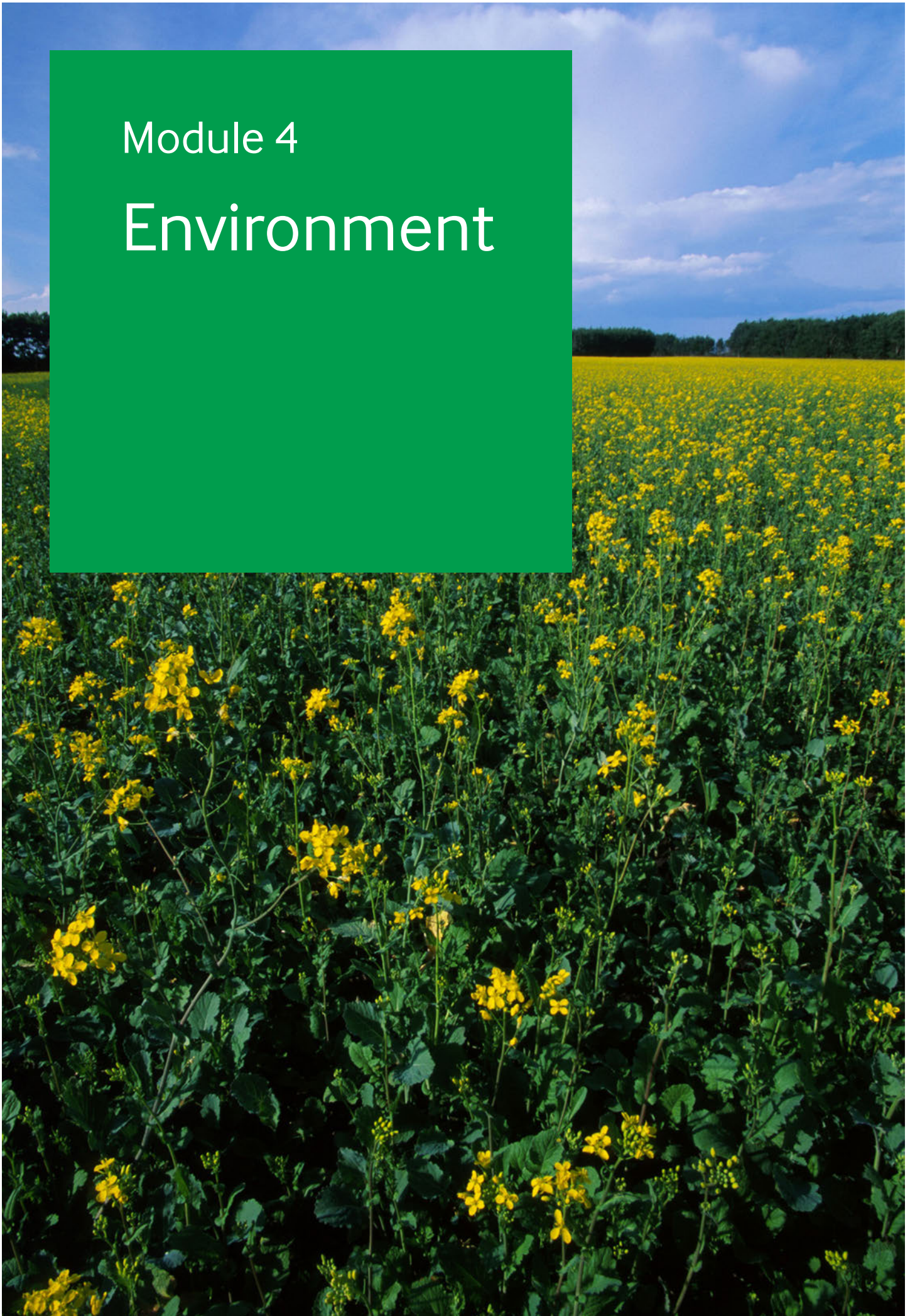
Introduction

Oil and gas operations, from exploration to manufacturing, storing and transporting products, can have a wide-ranging impact on the environment. As a result, companies apply systematic tools to:

- identify and assess the environmental impact of their operational activities;

- mitigate risks of pollution or contamination, by applying environmental management systems (EMS) including use of control technologies;

- protect and conserve natural resources, particularly by managing materials efficiently and minimizing waste;

- reduce the impact of emissions and waste streams;

- respond effectively to incidents, particularly spills to water or land; and

- decommission assets at the end of their operating life in an environmentally-sound and safe way.

Environmental risks are of increasing importance to a growing number of stakeholders. Many banks, for example, have exclusions or use enhanced diligence processes when financing assets that are located in protected or sensitive areas. Rating agencies with a focus on environmental, social and governance performance consider environmental concerns and the strength of a company's response to environmental risk management. Companies themselves carry out due diligence to examine environmental risks when conducting acquisitions and divestments. Poor environmental management can add operational risk, damage a company's reputation and impact finances.

Using a robust EMS, or integrated operating management system (OMS), helps companies demonstrate continuous improvement in reducing their impact on the environment. Industry benchmarking based on common indicators also allows for greater performance comparison across the sector.

Environmental issues are generally local in nature, and differences in operations, risks, impact regulatory frameworks and local expectations can result in reporting challenges. Depending on the nature and location of your business activities, the issues you choose to report on may differ from those reported on by other companies.

WATER

Water is an essential resource for human development, agriculture and industry. The UN considers access to water and sanitation to be a human rights issue that entitles everyone to sufficient, safe, acceptable, physically-accessible and affordable water for personal and domestic uses [1]. With the global population rising, rapid urbanization and agricultural and economic development, demand on freshwater supplies is likely to intensify.

The effects of a range of issues, such as climate change, land use, and water availability, reliability and quality, have many potential implications for oil and gas industry activities. For example, industry operators may consider operational locations where the availability and quality of water are already challenges, or could become challenges in the future, or in locations exposed to extreme weather and flooding.

Lack of access to water can have a significant impact on local communities and stakeholders. It can also create physical, regulatory and reputational challenges for industrial users, including the oil and gas industry. For example, the use of water in hydraulic fracturing has led to environmental and community concerns, resulting in prohibition in some locations.

Meanwhile, the connection between energy and water is growing as countries look to increase energy supplies (such as biofuels) that may require greater access to water. Equally, energy – often from oil and gas – is typically needed to collect, transport, treat and distribute water. As a potentially significant local user and producer of water, oil and gas companies are vulnerable to water disruption in their operations and supply chains.

As a result, effective water management is essential, in terms of the volumes of freshwater and non-freshwater withdrawn or consumed, the protection of water quality and the maintenance of access to reliable resources. More companies are developing water management strategies, improving their understanding of water scarcity risk management, developing water technology, recycling, utilizing alternative water sources (such as produced water) and developing collective participatory approaches to water management, within the industry and with other sectors.

BIODIVERSITY

'Biological diversity' is the phrase used to describe our planet's variety of living organisms from all sources, including terrestrial, marine and other aquatic ecosystems. In the oil and gas industry, biodiversity challenges tend to relate to the impact and dependency that onshore and offshore activities might have (in the short and long term) on air, water and land. However there are also opportunities, since business can help to develop and implement nature-based solutions to tackle issues such as climate change.

Biodiversity quality is the basis of effective ecosystems and, thereby, underpins the wide range of benefits (direct and indirect) that people derive from those systems – a concept known as 'ecosystem services'.

ECOSYSTEM SERVICES: THE BENEFITS THAT ECOSYSTEMS CONTRIBUTE TOWARDS HUMAN WELL-BEING (Millennium Ecosystem Assessment, 2005) [2]

Ecosystem services can be divided into four categories:

1. Provisioning – products or goods such as water, fish, or timber.
2. Regulating – ecosystem functions such as flood control and climate regulation.
3. Cultural – non-material benefits such as recreational, aesthetic and spiritual benefits.
4. Supporting – fundamental processes such as nutrient cycling and photosynthesis that support the above three categories.

Source: Based on World Resources Institute (WRI) materials.

Onshore and offshore operations occur in a wide range of natural and social environments with different sensitivities and regulatory regimes. Sometimes these operations take place in, or near, legally-protected areas, or sites high in biodiversity that are not legally protected but may still be relevant for conservation. These operations depend on environmental resources and have the potential to have direct, indirect and cumulative impacts on biodiversity. Identifying and managing these issues at an early stage can help a company manage its environmental risks and opportunities. Companies may act in accordance with the 'mitigation hierarchy', a tool that helps prevent and remediate biodiversity risk. IPIECA and IOGO jointly published a briefing document in 2018 on managing biodiversity and ecosystem services that provides more information on applying the mitigation hierarchy in the oil and gas industry [3].

Reporters can draw information on biodiversity from impact assessments, strategies and plans and operations. Biodiversity offsets, which typically seek to compensate for any residual effects after all reasonably feasible preventative measures have been taken, are increasingly expected from both shareholders and stakeholders, such as host governments, finance institutions and conservation non-governmental organizations (NGOs). Offsets intended to mitigate carbon emissions may also have collateral effects on biodiversity, through activities such as reforestation or land / soil restoration, which offer a range of environmental and social benefits.

AIR QUALITY

Air emissions from oil and gas industry operations, including pipelines and transportation, may contribute to local or regional impacts that can affect human health, flora and fauna or cultural heritage sites.

Impacts associated with greenhouse gas emissions, which are global rather than local, are included within Module 3 *Climate change and energy*.

Engineering technologies can be designed for new plants or retrofitted to reduce air emissions, helping minimize the impact on local air quality.

SPILLS TO THE ENVIRONMENT

Oil spills, which can result from operational incidents, poor maintenance, or equipment corrosion, can in the worst cases have severe and multiple environmental, social, health and economic consequences. Spills can also have severe, long-term consequences for a company's reputation.

For these reasons, in addition to reporting on the occurrence of spills, reporting on how a company is reducing and eliminating oil spills continues to be a primary indicator of operating performance. Module 5 *Safety, health and security* addresses oil spill loss of containment risk within indicator SHS-6. There is also a useful example in Module 1 *Reporting process* on 'Spills to the environment and process safety' on page 1.30 that illustrates how the environmental and safety aspects of spills can be linked within reports.

You will need to confirm your preparedness to respond reliably and rapidly to incidents and demonstrate that you have robust skills and resources to do so. It is good practice to separately report on non-hydrocarbon spills, if significant. These can include chemicals, produced or process water, raw materials or solid wastes. When reporting significant chemical or other non-hydrocarbon spills, you should include a description of the nature of the substance spilled and the associated risks. Spills of solids can include wastes such as plastic pellets, including nurdles.

MATERIALS MANAGEMENT

Materials management is an integral part of responsible consumption and production. It involves minimizing the quantity of materials / resources used, reducing waste and the sound management of chemicals, throughout the entire oil and gas industry supply chain. Robust management processes help minimize localized risks to the environment, communities and cultural heritage, while enhancing resource use and cost efficiency.

DECOMMISSIONING

When oil and gas assets reach the end of their lifecycle, there is a clear expectation that a company should decommission and, as appropriate, dismantle, remove from service or reuse the facilities in accordance with environmental standards, taking into account the needs of stakeholders and communities.

A company's decommissioning plans need to be detailed and involve regulators and other stakeholders. Effective plans address potential environmental and social impacts, while making sure the work is carried out safely and in compliance with regulations. Decommissioning planning is normally regulated, with governments and industry working together to make sure that financial and organizational provision is made for plans that meet defined standards for environmental and cultural heritage protection and address societal expectations.

The technical complexity and potential impacts of onshore and offshore decommissioning will depend on the type, scale and geographic location of the assets, as well as ecosystem and socio-economic considerations. However, the overall goals are the same: protecting the environment; minimizing the impact on communities; and ensuring the safety of the workforce.

WATER
Key points to address

A. Context on your overall interaction with water and how that might affect other water users. This can include your strategic approach to water management across your supply chain and any responsible stewardship approaches (including stakeholder engagement) you take to manage water as a shared resource, such as a watershed-based approach. This is especially relevant in locations where water stress / scarcity is a concern.

B. A narrative account of any global or corporate-level public commitments you have put in place to manage water resources responsibly. This might include water use commitments in areas of water scarcity, or quantitative targets relating to water quality, intensity, recycling or reuse.

C. The types of operational activities where water management is material. As well as conventional upstream, midstream and downstream oil and gas activities, this could include other activities such as non-conventional extraction from shale or oil sands with potential impacts on local water or land resources, such as induced seismicity. Other examples may include power generation, heating and cooling processes, or the production of alternative / renewable energy sources, such as biofuels.

D. The risks and opportunities for your overall activities associated with water, setting out the nature of those risks, such as the effect of water shortages on operations, and how you assess and address them. Opportunities may stem from more efficient use of water within operations, increasing access to freshwater resources for local use.

E. Progress or outcomes from your stakeholder and regulatory engagements, risk assessments, resource efficiency plans, implementation activities, performance evaluations and management reviews.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

ENV-1

Freshwater

WHY THIS MATTERS

Water management can influence the availability of water for the local environment, socio-economic development and future demands. Reporting on freshwater withdrawal and resources provides specific quantitative and qualitative information that supports your narrative on how you approach water management.

SCOPE

You should report the total volume of freshwater that you withdraw either directly from freshwater sources, such as lakes, groundwater aquifers and rivers, or from municipal freshwater supplies and other water utilities. Some operations may return significant amounts of freshwater, treated to the appropriate standards, back to the same or different source.

You should also report the amount of freshwater you consume (see Figure 4.1), which is the difference between the amount you withdraw and the amount you return. We would encourage you to report both freshwater withdrawn and consumed, subject to the availability of data, as this gives a more complete picture of your sustainability performance trends.
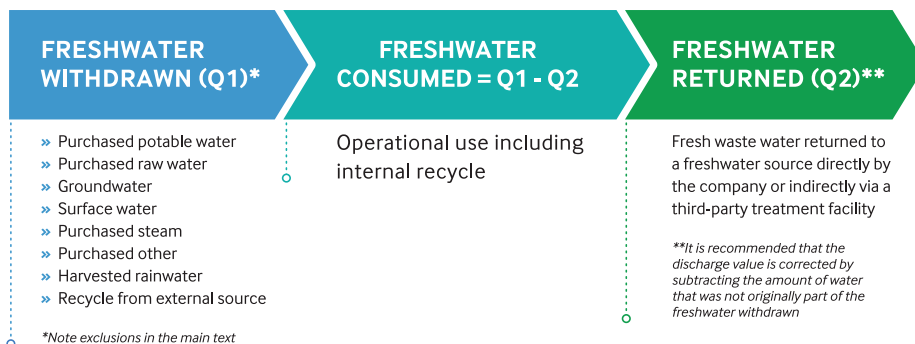

FRESHWATER WITHDRAWN (Q1)*	FRESHWATER CONSUMED = Q1 - Q2	FRESHWATER RETURNED (Q2)**
» Purchased potable water » Purchased raw water » Groundwater » Surface water » Purchased steam » Purchased other » Harvested rainwater » Recycle from external source *Note exclusions in the main text	Operational use including internal recycle	Fresh waste water returned to a freshwater source directly by the company or indirectly via a third-party treatment facility **It is recommended that the discharge value is corrected by subtracting the amount of water that was not originally part of the freshwater withdrawn*

Figure 4.1: Calculation of freshwater consumption

The following types of water should be excluded from these two reporting elements of withdrawn and returned freshwater:

- freshwater, used for once-through cooling water, returned unchanged (excluding thermal effects) into the same source, or a different freshwater body located in the same area in which the freshwater was originally withdrawn;

- produced water, including flowback water, from exploration and production operations;

- water provided — and already counted — by another facility within your company;

- stormwater discharged (if not harvested for freshwater site use); and

- fresh groundwater extracted solely for remediation or to control the migration of contaminated groundwater.

While the exclusions above refer to freshwater reporting, these other types of water are covered by several other reporting elements and you can include them if their impact is significant to your management of water.

If freshwater used for once-through cooling water is not returned to the same water source or another freshwater body, municipal supply or other water utility, it is considered consumptive use and you should, therefore, include it in your freshwater withdrawals.

As the potential effects are likely to be localized and more significant in areas where the freshwater supply is stressed or scarce, several reporting elements encourage you to provide additional information on your operations in such locations. When reporting on water-stressed or water-scarce areas, provide your company's definition of these terms (see the Definitions of Terms page 4.9).

Note that other indicators in the guidance may link to your management of freshwater risks and opportunities, such as indicator SOC-9 in Module 3 *Social*.

BASIS

You should report the volume of freshwater in cubic metres (m³) and consolidate it within your reporting boundary using the 'operational approach' (see Module 1 *Reporting process*). Reports should include examples or case studies to illustrate how you apply the indicator at a local level.

REPORTING ELEMENTS

CORE

C1	Report the total volume of freshwater you withdraw.
C2	Report the total volume of freshwater you consume.
C3	Provide a list and / or a percentage of your projects and operations that are in water-stressed or water-scarce areas.
C4	Report the percentage of freshwater you withdraw or consume in water-stressed or water-scarce areas, detailing how you reached that percentage.
C5	Report the total reduction in freshwater withdrawn or consumed due to your water reduction measures, including water you replace or recycle / reuse within your reporting boundaries.

ADDITIONAL

A1	Report your freshwater consumption per unit of production, the freshwater consumption intensity and by business activity, such as oil and gas production and refining.
A2	Report your freshwater withdrawal per unit of production, the freshwater withdrawal intensity and by business activity.
A3	Report your freshwater withdrawals related to once-through cooling water, not included in the core reporting elements.
A4	Report separately the volume of non-freshwater taken into your operation, as an alternative to freshwater withdrawn from surface or groundwater sources or purchased as potable water.

A5	Report water recycled / reused by third parties.
A6	Discuss your efforts to maintain / improve freshwater availability for local communities within water-stressed or water-scarce areas.
A7	Provide quantitative and qualitative information or case study examples on your operations located in water-stressed or water-scarce areas or other locations where you have identified potential water management risks, including: • the percentage of freshwater you withdraw from water stressed areas; • volumes of water you withdraw and / or consume from sources such as municipal water supplies and other water utilities and surface water, including water from lakes, rivers and aquifers; • volume of freshwater (treated as necessary) you return to the freshwater environment; • freshwater withdrawal or consumption intensity for the location; • water management practices you have adopted; • how you have avoided or minimized freshwater withdrawals; • how impacts to freshwater-dependent biodiversity and ecosystems have been avoided or minimized; and • your community and stakeholder engagement activities in relation to water management and the environment.
A8	Report your freshwater withdrawal as a percentage of total water withdrawn.
A9	Report your total volume of freshwater returned to the freshwater environment.
A10	Describe how you manage other types of water, including disposal. Other types might include produced water, process wastewater, stormwater or desalinated water. Descriptions may include: • water treatment; • water reused / recycled (indicating whether it is used by you or others); and • water returned to the environment by destination, such as irrigation, evaporation ponds, deep wells. Indicate water volumes if appropriate.
A11	Provide information on your use of fresh groundwater extracted for remediation or to control the migration of contaminated groundwater.

DEFINITIONS

- **Freshwater:** the definition varies according to local statutes and regulations. Where no regulation exists, freshwater is defined for reporting purposes as non-brackish water and may include drinking water, potable water and water used in agriculture. The total dissolved solids (TDS) concentration of this type of water is up to 2,000 mg/l.

- **Freshwater withdrawn:** the volume of freshwater removed from sources (including surface water, groundwater, harvested rainwater and municipal water supplies) and taken into the operations of the reporting company for use.

- **Freshwater returned:** the volume of freshwater a facility discharges (directly or via a third party) into the same source or a different source within the same catchment / watershed. We recommend the discharge value is calculated by subtracting the amount of water that was not originally part of the freshwater withdrawn. Examples include collected stormwater, or any groundwater from remediation activities (unless used in the facility as a source of freshwater). Freshwater that is discharged to a different source that is a non-freshwater supply, body or aquifer should not be considered freshwater returned.

- **Freshwater consumption:** the difference between freshwater withdrawn and freshwater returned.

- **Freshwater withdrawal intensity:** the ratio between freshwater withdrawal and a defined unit of production, such as barrels of oil for upstream operations and crude oil throughput for downstream operations, and product specific for petrochemical operations. You can calculate this by dividing the volume of freshwater withdrawn by the output or volume of product created.

- **Freshwater consumption intensity:** the ratio between freshwater consumption and a defined unit of production. You can calculate this by dividing the volume of freshwater consumed by the output or volume of product created.

- **Water replaced:** water sourced from a non-freshwater body that has replaced an existing freshwater source to reduce freshwater withdrawal and / or consumption. This might include water types such as produced water, process wastewater, stormwater or desalinated water.

- **Water reused / recycled:** water that has been used more than once in a single process or used in other processes, with treatment as appropriate, to reduce freshwater withdrawal. Note that the terms reused and recycled are similar and not differentiated for this indicator. If reused / recycled water is reported quantitatively, the reported volume should equal the reduction in the volume of freshwater withdrawn that resulted from the reuse / recycling.

- **Reduction in freshwater withdrawn or consumed:** a decrease in the amount of freshwater withdrawn or consumed in the reporting year due to planned actions, projects or measures to replace or reuse / recycle water. Freshwater reductions should be sustainable in future years and can only be aggregated over multiple years when referenced against the total change in freshwater withdrawn or consumed in the same period.

- **Water stress / scarcity:** when reporting qualitative and quantitative water stress and scarcity information, the definition or indicator of stress and scarcity should be defined by you. There is no single, universally-accepted measure of stress and scarcity and many tools and models have been developed that map the issue. IPIECA has studied a range of these tools in the 2019 [pending] publication *Review of water risk tools,* and you should choose which one to use [4].

INDICATORS

WATER

ENV-1
Freshwater

ENV-2
Discharges to water

BIODIVERSITY

ENV-3
Biodiversity policy and strategy

ENV-4
Protected and priority areas for biodiversity conservation

AIR EMISSIONS

ENV-5
Emissions to air

SPILLS TO THE ENVIRONMENT

ENV-6
Spills to the environment

MATERIALS MANAGEMENT

ENV-7
Materials management

DECOMMISSIONING

ENV-8
Decommissioning

ENV-2
Discharges to water

WHY THIS MATTERS

The oil and gas industry handles large quantities of produced water, process wastewater and stormwater. These are normally treated to remove contaminants before being discharged, in compliance with regulatory requirements. This indicator gives specific quantitative and qualitative information on the amount of hydrocarbon and other substances present in discharges from your operations to surface water, including the sea, rivers, lakes and other waterways.

SCOPE

This indicator is about the level of concentrations of oil, grease and other hydrocarbons within water that is returned to the environment. Typically, local and national regulations will define levels of hydrocarbons permitted in discharges.

Depending on your operational activities and how material the issue is for your company, you may extend your scope to report separately on the amount of other substances that are discharged in water streams that you manage. This might include substances of concern – as defined by you, international standards or other authoritative lists – that could damage to waterways, ecosystems or human health.

You should report management (reuse, recycling or disposal) of waste streams, such as salts, brines, oils and sludges, which are separated from water prior to discharge under indicator ENV-7.

You may wish to address this indicator together with indicator ENV-1, under the overall issue of water management. This could include coverage of the approach you take to protect freshwater resources from your activities.

This indicator excludes:

- quantities of hydrocarbons that are discharged to third-party treatment facilities;

- quantities of hydrocarbons associated with a once-through cooling water withdrawal returned unchanged, excluding thermal effects; and

- spills to the environment – which are covered by indicator ENV-6 to the environment.

BASIS

Report discharge data in metric tonnes of hydrocarbons (oil and grease) or other substances. You may also express quantities in terms of annual average concentrations (in mg/l or ppm).

You should consolidate discharge data using your reporting boundary 'operational approach' (see Module 1 *Reporting process*). Where appropriate, you may include examples to illustrate how you apply the indicator at a local level.

You should make your measurements using test methods required or approved by local regulatory authorities (or equivalent applicable standards).

ENVIRONMENT

REPORTING ELEMENTS

CORE

C1 For upstream facilities, report the quantity of hydrocarbons (in metric tonnes) and / or annual average concentrations (in mg/l or ppm) in produced water and process wastewater that you discharge to surface water.

C2 For refineries and other downstream facilities, report the quantity of hydrocarbons (in metric tonnes) and / or annual average concentrations (in mg/l or ppm) that you discharge to surface water.

ADDITIONAL

A1 Report separately other constituents or measures other than that you discharge to surface water from your facilities. Other measures may include chemical oxygen demand (COD), sulphides, ammonia, phenols, total suspended solids (TSS), or non-aqueous drilling fluids discharged).

A2 Discuss your efforts to manage discharges within local water environments where there is greater potential for environmental risks or benefits.

A3 Describe your community and stakeholder engagement activities in relation to the way in which you manage discharges to water.

A4 Explain trends in discharged quantities with respect to operating conditions such as field maturity.

A5 Report the volumes of produced water and process water that are:
- reused / recycled within the operation or to a third party;
- discharged to surface water; and / or
- disposed of via underground injection wells.

A6 Report discharges to water by destination type.

A7 Report water discharges in areas of high water stress.

DEFINITIONS
- **Produced water:** water that is brought to the surface during the production of hydrocarbons including formation water, flow-back water and condensation water.
- **Process wastewater:** water associated with operations that comes into contact with hydrocarbons or other chemicals.
- **Stormwater:** precipitation falling on (or run-off flowing across) a site, which is collected and discharged from point source outlets, such as pipes, collection ditches, storm sewers.
- **Discharges:** intentional releases from a facility into a waterway, typically through a permitted outlet after treatment.
- **Surface water environment:** fresh or saline surface water bodies, including rivers, lakes, wetlands, seas or oceans. Surface water excludes water in the atmosphere or groundwater.

INDICATORS

WATER

ENV-1
Freshwater

ENV-2
Discharges to water

BIODIVERSITY

ENV-3
Biodiversity policy and strategy

ENV-4
Protected and priority areas for biodiversity conservation

AIR EMISSIONS

ENV-5
Emissions to air

SPILLS TO THE ENVIRONMENT

ENV-6
Spills to the environment

MATERIALS MANAGEMENT

ENV-7
Materials management

DECOMMISSIONING

ENV-8
Decommissioning

BIODIVERSITY

Key points to address

A. How you incorporate biodiversity considerations into your governance and business processes for the lifecycle of your projects and activities. This may include how you integrate these processes within environmental management systems (EMS) or health, safety and environment (HSE) management systems (you may directly link to or incorporate this into your general reporting on governance and management systems).

B. Any public commitments you have made to protect or enhance biodiversity, such as a commitment to avoid working in sensitive areas or to pursue 'net gain' or 'no net loss'.

C. Qualitative or quantitative information to describe your overall biodiversity performance, and strategic decisions or positions, including if you set targets for continuous improvement and adaptive biodiversity management.

D. How you engage your stakeholders to include their perspectives, particularly local communities. Your narrative should set out how you assess and address their concerns in your biodiversity conservation planning and activities. At a corporate level, you can outline the way in which you work with biodiversity organizations or experts to understand emerging trends and good conservation practices. You could include site-level examples to demonstrate how you address stakeholder concerns about potential impacts.

E. Reference to any multi-stakeholder initiatives or partnerships you work with to promote improved understanding of biodiversity and ecosystems, or to address potential impacts to biodiversity.

F. Your broader approaches to protect biodiversity and ecosystem services, such as landscape-wide conservation initiatives, across countries, regions or communities. You might include an account of your approach to biodiversity offsets; descriptions of initiatives to protect and / or restore natural habitats, such as forests; or to protect and / or restore other land or marine environments.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

ENV-3
Biodiversity policy and strategy

WHY THIS MATTERS

It is a common expectation that companies set out their approach to how they manage their direct, indirect and cumulative impacts on biodiversity. This indicator encourages you to describe your overall approach to identifying and managing biodiversity risks and how you manage dependencies and impacts following the framework of the mitigation hierarchy [3], as well as potential opportunities for improvement and conservation.

SCOPE

You should describe your policies, commitments, strategies and plans for ensuring that biodiversity management is integrated into your operations throughout their lifecycle. You can broaden your narrative to include impacts and dependence on ecosystem services.

Potential impacts, management approaches and conservation opportunities vary according to geography, where an asset is in its lifecycle, and with the type of activity involved. Consequently, the materiality of this indicator can vary significantly between companies.

BASIS

You may support qualitative information with quantitative data, which should be consolidated within your reporting boundary using the 'operational approach' (see *Detailed guidance on developing a reporting boundary* in Module 1 *Reporting process*).

As noted in reporting element C1 in relation to risk management, you should explain the basis or criteria for determining the sensitivity of operating areas, with consideration of potential primary, secondary and / or cumulative impacts as appropriate.

REPORTING ELEMENTS

CORE

C1	Describe your biodiversity management approach, including policy, positions, goals, strategies, risk / impact assessments, mitigation plans and outcomes. This can include how you apply the mitigation hierarchy and international biodiversity standards in your operational planning, from early concept through to decommissioning.
C2	Provide examples or case studies of operating areas where you have put biodiversity management activities and adaptive management in place.
C3	Set out your processes for identifying and managing activities in sensitive operating areas, such as Biodiversity Actions Plans. Include the criteria you use to determine sensitivity and any applicable metrics.

ENVIRONMENT

INDICATORS

WATER

ENV-1
Freshwater

ENV-2
Discharges to water

BIODIVERSITY

ENV-3
Biodiversity policy and strategy

ENV-4
Protected and priority areas for biodiversity conservation

AIR EMISSIONS

ENV-5
Emissions to air

SPILLS TO THE ENVIRONMENT

ENV-6
Spills to the environment

MATERIALS MANAGEMENT

ENV-7
Materials management

DECOMMISSIONING

ENV-8
Decommissioning

INDICATORS

WATER

ENV-1
Freshwater

ENV-2
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MATERIALS MANAGEMENT

ENV-7
Materials management

DECOMMISSIONING

ENV-8
Decommissioning

ADDITIONAL

A1	Describe how you integrate biodiversity issues within your business strategies, including plans, commitments or targets for investment in initiatives and technologies that have the potential to conserve and / or enhance biodiversity and / or ecosystem services.
A2	Describe how you identify, assess and manage biodiversity impacts within your supply chain.
A3	Outline how you consider the biodiversity impact of your products, taking into account their sale, use and disposal.
A4	Describe any planned or current biodiversity offset projects (in the context of the mitigation hierarchy).

DEFINITIONS

- **Adaptive management:** the process of monitoring, assessing, and reporting the results of management practices and / or mitigation plans and using the results to improve future biodiversity performance.
- **Biodiversity Action Plans (BAPs):** a set of current or planned actions aimed at addressing identified biodiversity impacts that will lead to the conservation or enhancement of biodiversity at local level.
- **Biodiversity:** the UN Convention on Biological Diversity (1992) [5] defines biodiversity as the variability among living organisms within species, between species and between ecosystems. Biodiversity quality and richness are the basis of the integrity and effective working of ecosystems and thereby underpin all services they provide.
- **Dependencies:** the ecosystem services that a project or operation relies on to complete its work or run the business. For example, water, aggregates, storm / flood protection, water discharge treatment.
- **Ecosystem:** dynamic plant, animal and microorganism communities and their non-living environment interacting as a functional unit (Millennium Ecosystem Assessment, 2005) [2]. They include, but are not limited to, coral reefs, tundra, wetlands, forests, grasslands and farmlands.
- **Ecosystem services:** The Millennium Ecosystem Assessment (2005) defines ecosystem services as the benefits (direct and indirect) that people obtain from ecosystems [2]. The Assessment defines four categories of ecosystem services: provisioning services (products obtained from ecosystems such as freshwater or timber); regulating services (ecosystems' control of natural processes such as climate, disease, water flows and pollination); cultural services (recreation, aesthetic enjoyment); and supporting services (natural processes such as nutrient cycling that maintain other services).
- **Habitat:** the place or type of site where an organism or population naturally occurs.
- **Operating area:** where business activities take place that have the potential to interact with the adjacent environment.

ENV-4
Protected and priority areas for biodiversity conservation

WHY THIS MATTERS

This indicator provides information on the location and scale of your significant assets and projects that are in or near designated protected areas for biodiversity conservation identified by scientific criteria. This may indicate the potential for your operations to impact biodiversity and your exposure to biodiversity risk.

SCOPE

There is huge variation in the description of criteria and management approach for protected areas and priority sites for conservation at a global, regional and national level. A protected area is a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (IUCN definition 2008, 2013). For consistency, it is recommended for reporting elements C1 and A1 that you refer to the IUCN categorization for national protected areas. In addition, you may take into consideration:

- International protected area designations including UNESCO World Heritage sites (natural and cultural), the Ramsar Convention wetlands sites and the UNESCO Man and Biosphere Reserves; and

- Key Biodiversity Areas (KBAs) – sites that contribute significantly to the global persistence of biodiversity (as listed by the KBA Partnership).

Depending on specific concerns in your locations of operation, other national or regional protected areas or priority sites may be relevant. The Integrated Biodiversity Assessment Tool (IBAT) from the IBAT Alliance provides a useful compendium of both protected areas and KBAs.

Please note the definition of terms provided in indicator ENV-3. It should be noted that your operating areas may be within, adjacent or near more than one type of biodiversity-rich area. Although this indicator does not define 'near' in terms of an absolute distance or buffer zone, your impact assessments for operations or projects can help indicate if biodiversity may be affected in an adjacent or near protected area.

BASIS

You should include qualitative information including examples to illustrate how you apply the indicator at regional and local levels. You may support this with quantitative data, which you should consolidate within your reporting boundary using the 'operational approach' (see Module 1 *Reporting process*).

INDICATORS

WATER

ENV-1
Freshwater

ENV-2
Discharges to water

BIODIVERSITY

ENV-3
Biodiversity policy and strategy

ENV-4
Protected and priority areas for biodiversity conservation ▶

AIR EMISSIONS

ENV-5
Emissions to air

SPILLS TO THE ENVIRONMENT

ENV-6
Spills to the environment

MATERIALS MANAGEMENT

ENV-7
Materials management

DECOMMISSIONING

ENV-8
Decommissioning

REPORTING ELEMENTS

CORE

C1 Provide a list and / or a percentage of your projects and operations that are in or near protected areas and priority sites for biodiversity conservation.

C2 Describe your commitments, including avoidance and mitigation measures, that relate to projects and operations in or near protected areas and priority sites for biodiversity conservation.

ADDITIONAL

A1 For projects and operations included in C1, describe your progress on:

- ongoing or planned biodiversity / ecosystem services activities;
- biodiversity impact mitigation measures;
- BAPs in place; and
- monitoring plans and verification processes.

A2 Describe the outcomes of any baseline assessments for planned projects where future activities are in or near internationally-protected biodiversity areas.
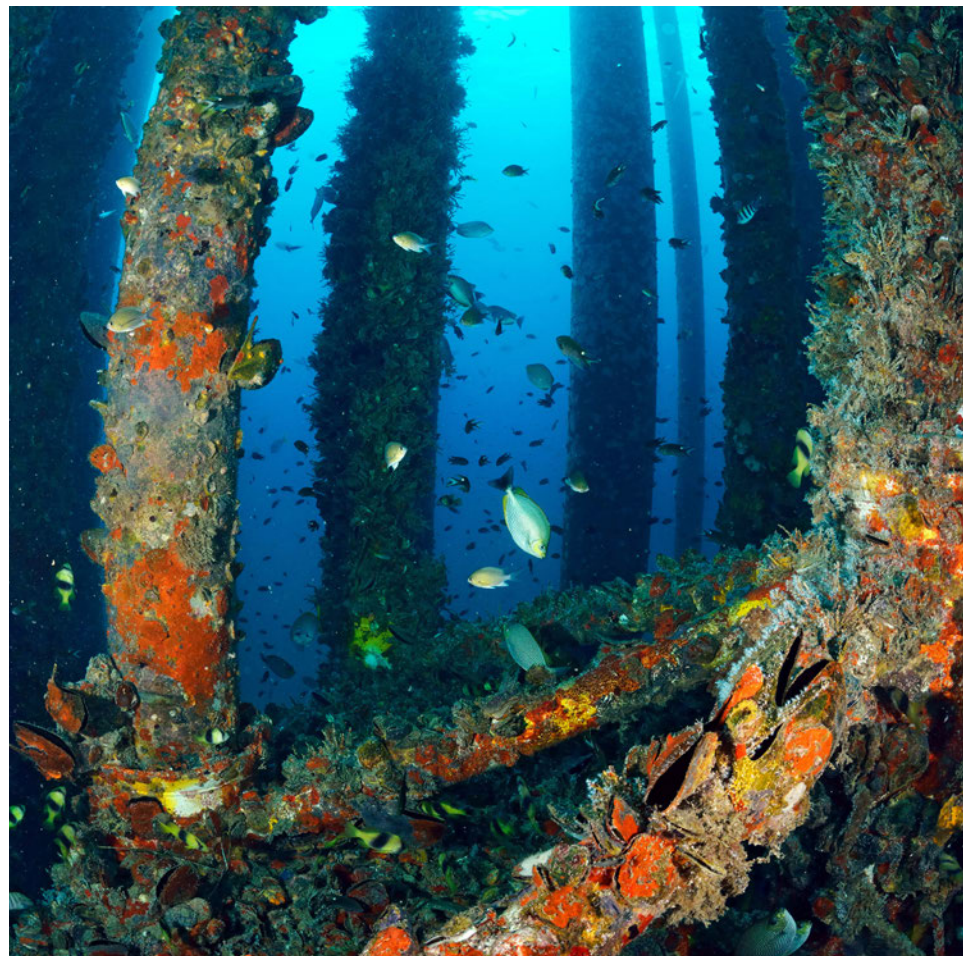
AIR EMISSIONS
Key points to address

A. Your overall position on air quality, including risks and related impacts, as well as opportunities to improve air quality, including any specific targets or commitments. You can highlight any air quality issues that relate to public health in cities and other relevant locations.

B. Your approach to managing the impact your operations have on air quality, with reference to applicable regulatory frameworks, or internal frameworks, if local rules are less stringent. In addition to the atmospheric pollutants reported quantitatively in indicator ENV-5 below, you can include localized impacts of other airborne pollutants, such as noise, odours or black smoke from non-routine flaring, that result in neighbouring community concerns. You may also capture these concerns in your community grievance reporting mechanisms outlined in indicator SOC-12, Community Grievance Mechanisms.

C. Air quality issues that relate to your value chain or supply chain, such as emissions from transportation (road, marine or aviation). For companies with downstream marketing and retail activities, you could include discussion of vehicle exhaust emissions and urban air quality impacts. You should outline any individual or collaborative efforts to supply cleaner fuel products with lower environmental impacts.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

ENV-5
Emissions to air

WHY THIS MATTERS

Emissions to air are an important determinant of local and regional air quality and can affect human health, flora and fauna or cultural heritage sites. This indicator enables you to set out the quantities of emissions to the atmosphere from your operations and describes how you monitor and manage the impact of these emissions. It gives you an opportunity to discuss any innovative approaches you take to manage air emissions as well as to report on your performance, based on quantities of pollutants released annually to the atmosphere.

SCOPE

You should report significant emissions released to the atmosphere from your operations by category. The specific substances included in each emissions category are detailed in the definition of terms or as specified by the local regulatory agency. Categories of emissions that are of significance for many oil and gas companies include:

- volatile organic compounds (VOCs);
- sulphur oxides (SO_x);
- nitrogen oxides (NO_x), excluding N_2O;
- carbon monoxide;
- particulate matter (PM);
- ozone-depleting substances (ODS); and
- other regulated air emissions.

This scope does not include carbon dioxide and methane, which are reported within indicator CCE-4.

Approved or required methods of estimation and calculation of air emissions vary according to local regulatory standards and by facility permit requirements. You should describe the approved local methodologies that you are using to gather this performance data.

BASIS

Report quantitative emissions data in metric tonnes (SO_x reported as SO_2, and NO_x reported as NO_2). You should consolidate air emissions data within your reporting boundary using the 'operational approach' (see Module 1 *Reporting process* for more on reporting boundaries) and, if appropriate, include examples to illustrate how you apply the indicator at a local level. Companies should determine significance when considering types and location of emissions.

REPORTING ELEMENTS

CORE

C1 Report your total emissions, by category:
- volatile organic compounds (VOCs);
- sulphur oxides (SO_x);
- nitrogen oxides (NO_x).

C2 Discuss how you monitor and manage the impact of your operations on local air quality, including any technologies you use, such as those that remove or treat combustion emissions in operations or fuel products.

ADDITIONAL

A1 Report your total emissions, by category, if significant:
- particulate matter (PM);
- carbon monoxide;
- ozone-depleting substances (ODS); and
- other air emissions with an environmental impact, taking into account local regulatory categorizations and requirements.

A2 Report your emissions by regional and / or business activity, where relevant.

A3 Share case studies, or other forms of local reporting or data that demonstrate air quality management at regional, national or local levels, including locations where you have put specific initiatives or measures in place to alleviate poor air quality.

DEFINITIONS

Due to air pollution regulations at national, regional and local levels, the specific compounds regulated in each emissions type may vary slightly. The following definitions are provided as a guide for reporting:

- **Nitrogen oxides (NO_x):** includes the total nitric oxide (NO) and nitrogen dioxide (NO_2) expressed as NO_2 equivalent and excludes nitrous oxides (N_2O).

- **Sulphur oxides (SO_x):** includes sulphur dioxide (SO_2) and sulphur trioxide (SO_3) expressed as SO_2 equivalent.

- **Volatile organic compounds (VOCs):** organic compounds, excluding methane and ethane, that vaporize in the atmosphere and may participate in photochemical reactions. VOCs should be defined in accordance with regulatory requirements where a local regulatory agency has defined measures for specific compounds. You should specify which species are included in your reporting, for example 'non-methane VOC', and highlight any locations where a local regulatory agency has defined specific compounds.

- **Particulate matter (PM):** a complex mixture of extremely small particles and liquid droplets. PM is made up of several components, including acids, such as nitrates and sulphates, organic chemicals, metals and soil or dust particles. Definitions depend on local regulations and are frequently based on particle size (e.g. PM_{10} or $PM_{2.5}$). Companies should specify which PM metric they are reporting.

- **Ozone-depleting substances (ODS):** includes halons, CFCs, HCFCs and methyl bromide (we suggest reporting when quantities emitted may be of interest). While ODS are not produced by oil and gas activities, they may be used for activities such as refrigeration, gas processing and fire suppression.

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ENV-1
Freshwater

ENV-2
Discharges to water

BIODIVERSITY

ENV-3
Biodiversity policy and strategy

ENV-4
Protected and priority areas for biodiversity conservation

AIR EMISSIONS

ENV-5
Emissions to air

SPILLS TO THE ENVIRONMENT

ENV-6
Spills to the environment

MATERIALS MANAGEMENT

ENV-7
Materials management

**DECOMMISSIONING**

ENV-8
Decommissioning

SPILLS TO THE ENVIRONMENT
Key points to address

A. An overview of any significant spills of oil or hazardous chemicals into the environment and the corrective actions taken to address them.

B. How you assess and address risks of spills at a corporate level, including oversight from your board and / or senior management. Include both spill prevention and response when outlining your management approach. You can link this narrative to your reporting on process safety risks (see SHS-6 in Module 5 *Safety, health and security*).

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.
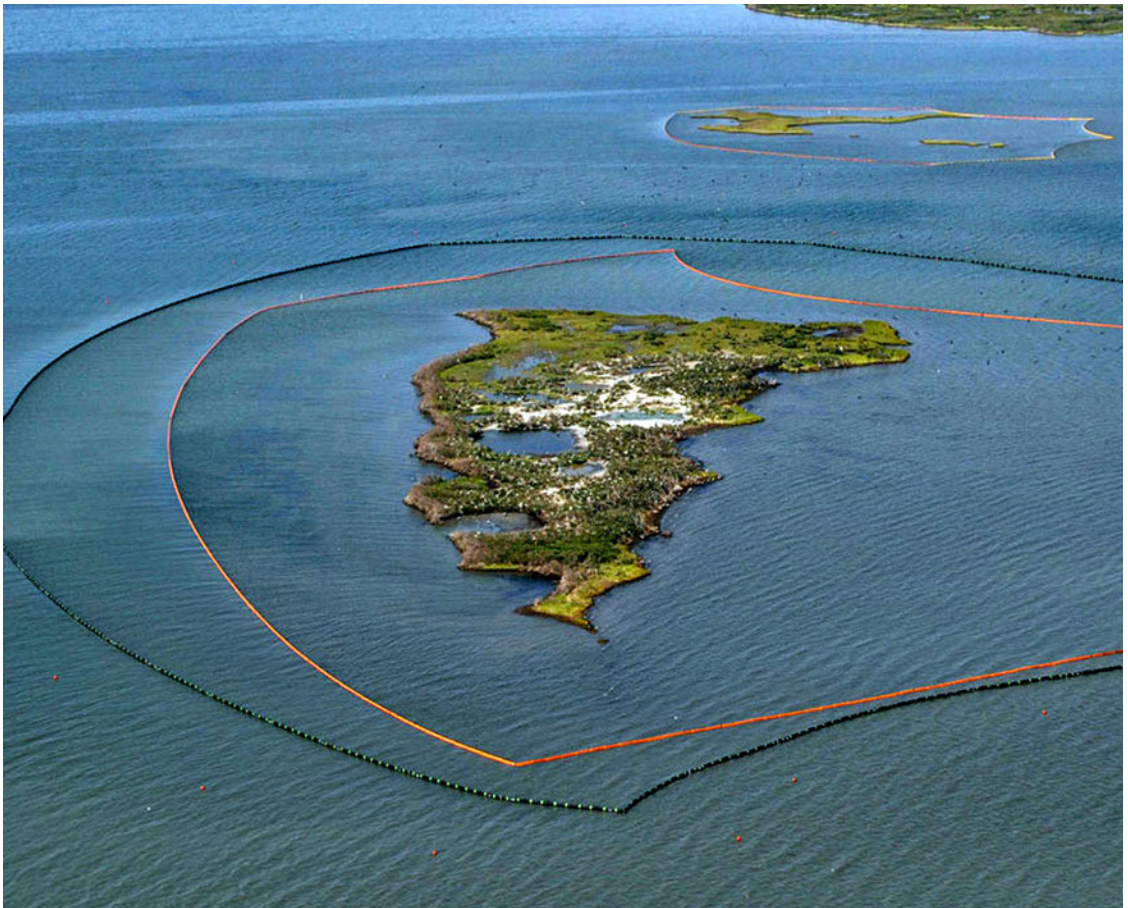
ENV-6
Spills to the environment

WHY THIS MATTERS

Oil spills can in the worst cases have severe and multiple environmental, social, health and economic consequences and can also severely affect a company's reputation. This indicator provides information on your management approach to prevent and respond to unintended spills of regulated liquids subject to release reporting laws to land or water, onshore and offshore. It details your performance based on the number and volume of oil or chemical spills and can include details on the consequences of spills to the local environment, communities or cultural heritage.

SCOPE

Your reported volume should represent the total estimated amount spilled that reached the environment. It should not be reduced by the amount of hydrocarbons subsequently recovered, evaporated or otherwise lost.

In addition to reporting spills that reach the environment, you may choose to report separately on the number and volume of spills from primary containment: that is, spills that reach the environment, plus those that are contained within impermeable secondary containment.

This indicator highlights operational performance and directly relates to process safety, in terms of prevention of spills and recording spills as process safety events (see Module 5 *Safety, health and security*). You can report gas releases and spills that meet specific criteria as process safety events under indicator SHS-6.

You should include releases from:

- your operations, for example, releases from above-ground and below-ground facilities or from company-owned and operated transport; and

- events outside your operational control, for example, sabotage, earthquakes and extreme weather events.

You should only count leakage over time, above ground or underground, once, at the time it is identified.

You may report spills to soil and water separately. A spill that qualifies as a spill to both soil and water should be reported as a single spill to water, with the volume properly apportioned to soil and water.

You should exclude the following:

- once previously reported, spilled materials in the environment from historical losses;

- even if not previously reported, spilled materials in the environment from historical losses where the volume or source of the historic release is unknown; and

- hydrocarbons in produced water discharges or otherwise permitted discharges, such as wastewater effluents, which are included in indicator ENV-2.

In the absence of analytical data, you might choose to estimate the hydrocarbon content of spills of oil-water mixtures, for example, oil-water emulsions. If you are reporting spills with both hydrocarbon and non-hydrocarbon components, you should report a single hydrocarbon spill with the volumes properly apportioned to the extent

reasonably possible. If relevant, you may separately report spills of other materials. For chemical spills involving:

- miscible solutions: the spill volume is based on the total volume of material spilled; and

- insoluble mixtures: the spill volume is based on the volume of the chemical constituent.

When reporting significant chemical spills, you should include a description of the nature of the substance spilled and any associated risks. Spills of solids can include plastic pellets, including nurdles. Spills of inert solid materials, such as solid sulphur, barium sulphate, bentonite or cured solid concrete as well as treated or untreated wastewater, are excluded.

BASIS

It is standard industry practice to report the number and volume of hydrocarbon spills greater than one barrel (bbl) that reach the environment. For reference, 1 bbl = 42 US gallons or 159 litres; for solids, convert mass to volume in barrels, for example, using 159 kg or similar default value for weight of material. You should report volumes in barrels or cubic metres (1 m^3 = 6.29 US bbl).

You should consolidate your oil spill data within your reporting boundary using the 'operational approach' (see Module 1 *Reporting process* for more on reporting boundaries) and include examples to illustrate how you apply the indicator at a local level.

You should determine significance (see *Glossary*) when considering reporting by type or location, or for individual spills.

REPORTING ELEMENTS

CORE

C1 Describe your strategies and risk-based approach to prevent accidental releases of hydrocarbons / other materials to the environment.

C2 Report the number and volume of hydrocarbon spills greater than 1 bbl reaching the environment.

C3 Provide case studies or examples of significant spills, as determined by the company, which may include descriptions of the following:

- your response measures to address immediate and long-term effects;
- any secondary effects on local communities and stakeholders;
- your stakeholder engagement;
- incident investigation findings, if available, including root-causes; and
- actions you are taking to prevent recurrence and share lessons.

C4 Describe your emergency preparedness and response programmes, plans, organizational structures and affiliations for an effective response to spills and other emergencies. Your description may include the development and checking of contingency plans, including aspects such as training, skills development, and emergency response exercises.

ADDITIONAL

A1 Report the volume of hydrocarbons / other materials you recovered.

A2 Report the number and volume of hydrocarbon spills greater than 1 bbl from primary containment.

A3 Report, separately, your hydrocarbon spills to soil and to water, by number and volume spilled.

A4 Report, separately, your hydrocarbon spills by business activity, such as production or chemicals.

A5 Report the number and volume of spills of non-hydrocarbon materials, including chemicals, produced water or other materials, to soil and to water.

A6 Report spills with lower thresholds (less than 1 bbl) where smaller spills are significant to certain activities or locations. For example, marketing and transportation may have more small spills than other operations.

A7 Discuss, in qualitative terms, any significant impact on the environment caused by a spill, particularly from larger releases or from a small release into a sensitive environment.

A8 Separately report significant hydrocarbon spills from product transportation by third parties, including your definition of significance used for this category of spill.

INDICATORS

WATER

ENV-1
Freshwater

ENV-2
Discharges to water

BIODIVERSITY

ENV-3
Biodiversity policy and strategy

ENV-4
Protected and priority areas for biodiversity conservation

AIR EMISSIONS

ENV-5
Emissions to air

SPILLS TO THE ENVIRONMENT

◀ **ENV-6**
Spills to the environment

MATERIALS MANAGEMENT

ENV-7
Materials management

DECOMMISSIONING

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Decommissioning

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DEFINITIONS

- **Spill to the environment:** any unintended release of liquids or solids associated with current operations, from primary or secondary containment, into the environment.
- **Environment:** surface water, soil, groundwater, and ice-covered surfaces where:
  › 'soil' includes surfaces such as sand, silts, shells and gravel, not designated as impermeable secondary containment, as well as the underlying sediments and groundwater resources;
  › 'surface water' includes creeks, rivers, ponds, seas, oceans, but excluding ponds, pits, basins, located on your property for purposes of hydrocarbon containment / treatment;
  › spills to snow- or ice-covered surfaces and standing rainwater are classified based on the surface below the snow, ice or water.
- **Hydrocarbon liquids:** crude oil, condensate and petroleum-related products containing hydrocarbons that are used or manufactured, such as: gasoline, residuals, distillates, asphalt, jet fuel, lubricants, naphthas, light ends, bilge oil, kerosene, aromatics, refinery petroleum-derivatives, non-aqueous drilling fluids (NADFs). Includes:
  › biofuels, regardless of percentage mixture with petroleum-based materials (if 100% methanol or ethanol it would be a chemical spill); and
  › the oil fraction of oil / water mixtures (e.g. emulsions, production fluids).
- **Non-hydrocarbon materials:** chemicals, aqueous-based drilling fluids, produced water and other process-related non-hydrocarbons. Examples of chemicals include methanol, ethanol, ketones, methyl tertiary butyl ether (MTBE), sulphuric acid, caustic, molten sulphur, stimulation acid, brine, dry salts, uncured or powdered cement. Spills of inert solid materials, such as solid sulphur, barium sulphate, bentonite or cured solid concrete as well as treated or untreated wastewater, are excluded.
- **Primary containment:** a vessel, pipe or barrel designed to keep a material within it.
- **Secondary containment:** an impermeable, non-leaking physical barrier specifically designed and maintained to keep spilled materials from reaching soil or water. For example, high-density polyethylene (HDPE) liners, engineered clay liners, asphalt, concrete. Earthen berms do not count as secondary containment unless they are engineered to be sufficiently impermeable to prevent spilled oil from contaminating underlying soil and / or groundwater.
- **Recovered hydrocarbons:** the spilled hydrocarbons removed from the environment through short-term spill response activities. This does not include longer-term remediation of the spill site. Oil that evaporates, burns or is dispersed into the water column should not be included in recovered volumes. This volume provides an indication of the effectiveness of your immediate oil spill response measures.

MATERIALS MANAGEMENT

Key points to address

A. The importance of materials management to your company, including any high-level positions or policies. You may refer to areas such as:

    i. waste hierarchy, including avoidance, reduction, reuse, recycling and disposal principles;

    ii. sustainable consumption and production; and

    iii. application of circular economy principles to reduce consumption and maximize the life and value of materials.

B. Context about your activities and the specific materials you produce or use that have potential impacts on the environment, such as lubricants, drilling fluids, plastics (including microplastics) and construction components.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

ENVIRONMENT

ENV-7
Materials management

WHY THIS MATTERS

Effective materials management can help minimize local risks to the environment, communities and cultural heritage, and can enhance resource use and cost efficiency. This indicator highlights your efforts to manage materials throughout a project or activity's lifecycle. You should report quantities of waste from your operations and describe your overall approach to managing materials including your efforts to minimize the amount of materials you use, operate efficiently and reduce waste. This can include a description of your application of circular economy principles.

SCOPE

Your description of your materials management approach should be company-wide, covering the lifecycle of resources, and your entire supply chain. You should include any efforts to minimize waste, together with information on new technologies designed to avoid the generation of waste.

You should report the quantity of hazardous waste that you dispose, including on-site and off-site disposal.

You may report separately the quantities of non-hazardous waste that you dispose, as well as waste that you reuse, recycle or recover. You should state the basis for your assessment clearly and include the following sources:

- waste from operational activities;
- waste from immediate responses and clean-up of spills; and
- waste from the replacement or upgrade of existing facilities.

For routine reporting of waste amounts under reporting elements C3 and A1, waste from the following sources is excluded:

- remediation of historical contamination at active sites;
- remediation of inactive or abandoned properties;
- facility or plant demolition;
- construction of new facilities;
- maintenance of contractor-owned equipment, any materials brought on site and eventually disposed of as surplus by the contractor;
- drilling muds and cuttings;
- mine tailings; and
- produced water and wastewater.

As discussed below, waste from these excluded sources can be separately reported in A3, if significant. In addition, if a regulatory authority defines any of these out-of-scope materials as hazardous — or some equivalent term — and they are disposed of as defined above, you should report them accordingly as hazardous waste.

Using reporting element A3, separate reporting of waste from unusual or high-volume events may allow stakeholders to better understand any year-to-year fluctuations in your data. In addition to the excluded sources list above, events that can lead to short-term fluctuations in waste include shutdowns and periodic maintenance activities that can generate high volumes of wastes, such as spent catalyst from downstream and midstream operations that needs to be treated before disposal and recycling. Waste streams included in separate reporting should be clearly described.

In locations where no appropriate waste infrastructure exists, you may need to store waste safely on-site for an extended period before final disposal or recovery is possible. You should report the quantity of waste in such storage separately if the amount is significant to your overall total of waste reported.

Similarly, you should explain the inclusion of large one-off disposals of stored waste in your reported numbers.

BASIS

Report mass of waste in metric tonnes. You should consolidate waste data within your reporting boundary using the 'operational approach' (see Module 1 *Reporting process* for more on reporting boundaries).

It may not be practical to account for all waste from your operations. If you have adopted a minimum reporting threshold, where a facility does not track waste information, it is good practice to disclose your threshold and indicate the significance to your data — indicating if, for example, routine waste from marketing operations is below an established minimum level.

It is useful to measure or estimate quantities of wastes (both hazardous and non-hazardous) using methods required or recommended by regulatory agencies or authorities. You should state your chosen method of measurement and estimation. Recommended methods include:

- direct measurement of quantity on site;

- direct measurement by transporters at the point of shipping or loading (consistent with shipping papers);

- direct measurement of quantity by waste disposal contractor at the point of waste disposal or by transporters, at the point of shipping or loading; and

- engineering estimates or process knowledge.

INDICATORS

WATER

ENV-1
Freshwater

ENV-2
Discharges to water

BIODIVERSITY

ENV-3
Biodiversity policy and strategy

ENV-4
Protected and priority areas for biodiversity conservation

AIR EMISSIONS

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Emissions to air

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Decommissioning

REPORTING ELEMENTS

CORE

C1 Describe your approach to materials management. This may include your operational strategies to optimize design, minimize the amount of materials you use, and promote efficient use while ensuring sustainable recovery and regeneration for further beneficial use.

C2 Describe your efforts to minimize the generation and disposal of waste, to increase reuse and recycling and to continuously improve your materials management practices.

C3 Report the quantities of waste that you:

- generate;
- dispose; and
- recycle, reuse or recover.

You may report hazardous and non-hazardous waste separately, or total waste, stating that this includes both hazardous and non-hazardous material.

ADDITIONAL

A1 Report separately quantities of waste by waste streams and by business, highlighting any new initiatives or projects to reduce or eliminate specific waste streams, such as measures that adopt the principles of the circular economy.

A2 Report separately the quantities of waste you store and that are awaiting treatment prior to disposal or recycling.

A3 Report separately the waste that is excluded from routine reporting, such as remediation activities at active and / or inactive sites, unusual activities, such as large one-time construction projects, or large-volume wastes, such as drill mud and cuttings.

A4 Describe any collaborative projects to establish new or improved facilities that enhance local materials and waste management infrastructure.

DEFINITIONS

- **Waste:** material (solid or liquid) intended for disposal, reuse, recycling or recovery either on- or off-site that is the result of your operations. Includes domestic waste and other discarded material from offices and commercial activity, such as retail. It does not include regulated or authorised water discharges, such as effluent from water treatment plants or produced water from oil and gas production.

- **Hazardous waste:** waste that is defined as toxic, dangerous, listed, priority, special — or similar term — by an applicable country, regulatory agency or authority.

- **Non-hazardous waste:** industrial waste resulting from your operations, including process and oil field waste (solid and liquid) disposed either on- or off-site. Includes industrial waste and other office, commercial or packaging-related waste. Excludes hazardous waste as defined above.

- **Disposal:** any waste management option, either on- or off-site, classified as 'disposal' by an appropriate regulatory agency or authority. In cases where such classification is absent, any waste management that does not meet the definition of 'reused, recycled and recovered' waste, such as land filling or burning without energy recovery. Temporary storage is not considered disposal.

- **Reused, recycled or recovered waste:** waste from an industrial or commercial process that is not disposed of, but is reused, for example, used as a raw material for another process, or recovered for beneficial use. The term 'reused, recycled or recovered materials' is equivalent and may be preferred to align reporting with local regulatory definitions. Examples may include catalysts sent for reclamation, sludge used for fuel, reused construction materials, recovered used oil and solvents, recycled scrap metal, drums, pallets and packaging returned or reused, plastic, glass or paper reused or reprocessed and uncontaminated earthen materials used as fill.

INDICATORS

WATER

ENV-1
Freshwater

ENV-2
Discharges to water

BIODIVERSITY

ENV-3
Biodiversity policy and strategy

ENV-4
Protected and priority areas for biodiversity conservation

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Materials management

DECOMMISSIONING
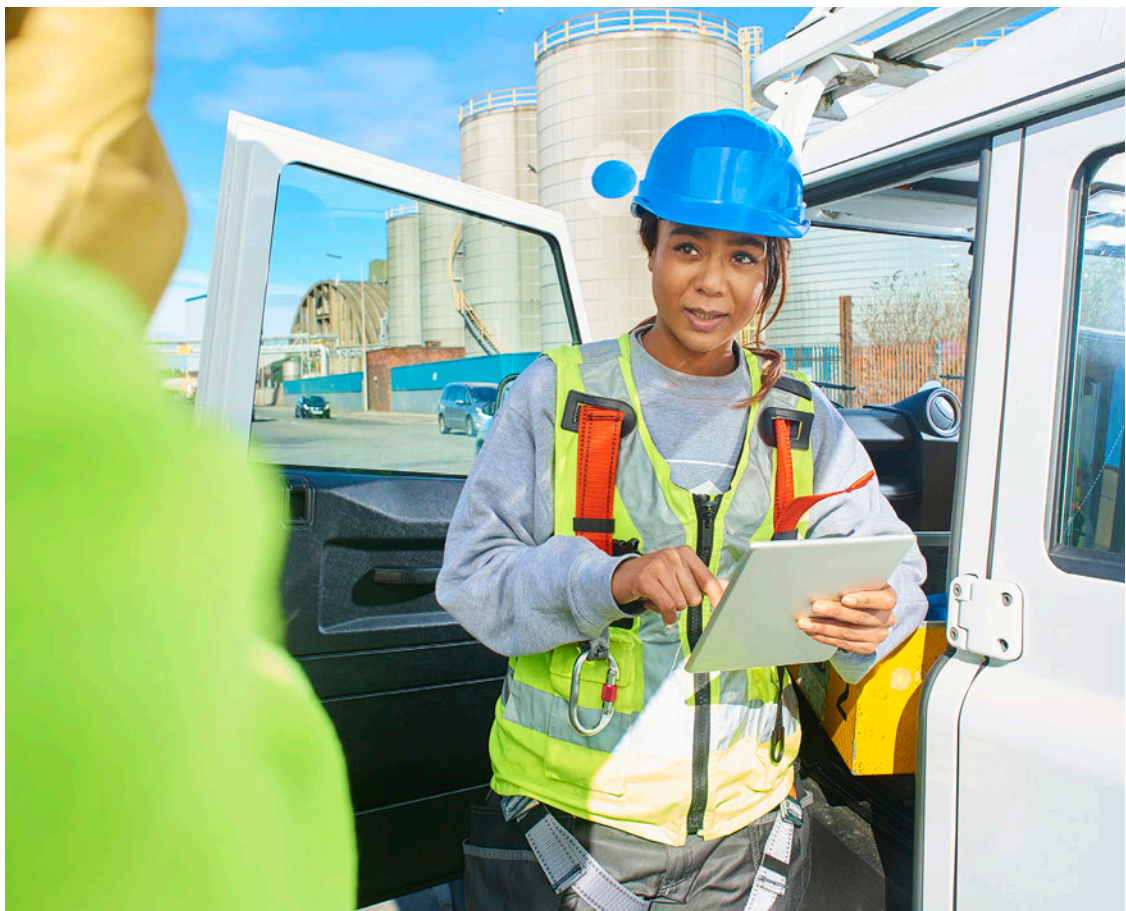
ENV-8
Decommissioning

DECOMMISSIONING
Key points to address

A. Your overall approach to decommissioning for different types of assets, such as offshore and onshore upstream production facilities, refineries, chemical plants, pipelines or terminals.

B. Context on any risks and opportunities related to your facilities that are approaching the end of their productive life and that are due to be decommissioned, highlighting any significant planned or current projects.

C. Your process to engage stakeholders and regulators when planning and executing decommissioning projects. This could include how potential social impacts are considered when an employer is no longer present after facilities are decommissioned.

D. The practical steps you apply for decommissioning, including abatement of hazards, materials management during demolition, remediation to acceptable standards, and reclamation to restore the site for future use.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

ENV-8

Decommissioning

WHY THIS MATTERS

There is a clear expectation that companies should dismantle and remove or reuse facilities in accordance with environmental standards, and take account of the needs of stakeholders and communities. This indicator provides an opportunity for you to share information on current and future decommissioning projects and to describe your plans and processes for environmental protection and restoration, including abatement, demolition, remediation, reclamation and beneficial materials management.

SCOPE

Your management approach may include descriptions of established policies, standards, processes, practices or procedures.

You may want to include information on planned resources, such as finance and labour, recycling and reuse of materials, asset disposal, safety, security, engagement with communities and / or local authorities, and efforts to minimise any negative socio-economic impacts associated with asset closure.

You may provide the number, geographical location, description and progress status of any significant decommissioning projects you are currently working on, individually or by type. You may also include any intended outcomes and plans for use of the asset for beneficial end use.

You may want to focus on larger single projects, such as the decommissioning of entire facilities, such as an offshore production platform or a refinery, or collectively describe the different types of decommissioning activities you carry out. You could include smaller assets, such as fuel terminals and service stations depending on their relative importance.

INDICATORS

BASIS

You should clarify your terminology and the types of assets that your approach covers. You should determine which projects are 'significant' for reporting based on the scale, location, type and their potential impact. In determining 'significant', you should consider issues such as the asset's financial scale, and its environmental and social impact before decommissioning and as a result of decommissioning.

REPORTING ELEMENTS

CORE

C1	Describe your approach to planning and executing decommissioning activities for offshore and onshore assets.
C2	Provide information on management of materials recovered from decommissioning activities including any applicable data on the percentage of materials reuse and recycling, achieved or planned, for significant decommissioning projects (i.e. for major facilities such as offshore production rigs, refineries or major pipelines / terminals).

ADDITIONAL

A1	Provide the number, location, status and brief description of decommissioning and associated remediation projects that you consider to be relevant.
A2	Describe any technology and research you are involved in related to decommissioning and remediation.
A3	Describe the environmental and social (including economic) impact of your decommissioning work and any post-decommissioning monitoring plans you have in place.
A4	Report the total financial provision made by the company for decommissioning offshore and / or onshore projects.

DEFINITIONS

- **Assets:** an identifiable resource that is owned or controlled by you. Typically, an asset is a single or group of facilities based on land or sea, that may include buildings and engineered structures (e.g. refineries, production rigs or platforms, chemical facilities, process plants, wells, pipelines, terminals, electrical distribution systems, roads, retail outlets, offices or supporting infrastructure).

- **Decommissioning:** a structured process of planning, preparation and execution, leading to the eventual removal from service or reuse of an asset, giving due consideration to the potential impact on the environment and communities. The term 'decommissioning' is intended to include the following activities:

  › Abatement: safe removal of hazards, such as asbestos, polychlorinated biphenyls (PCBs), hydrocarbon, or hydrogen sulphide (H_2S) from an asset.

  › Demolition: the process and activities to remove an asset.

  › Remediation: a process to reduce or eliminate the impact on areas of land or water in order to restore environmental conditions to acceptable levels, with reference to regulatory or company standards as appropriate.

  › Reclamation: the restoration of disturbed lands to similar pre-development condition, other economically-productive use, or natural or semi-natural habitat.

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Biodiversity

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Module 5

Safety, Health and Security

Introduction

The oil and gas industry has a long history of addressing safety, health and security risks. While significant progress has been made to reduce the number of harmful incidents, potentially damaging events still occur. Safety, health and security protection therefore remains a material issue for reporting.

Encouraging participation in safe, healthy and secure practices within the workplace promotes greater hazard awareness and changes the way people approach risk. Companies also recognize the value of raising awareness in local communities and with other stakeholders. Prevention of illness and promotion of healthy lifestyles provide lasting benefits for the workforce, their families and the general public.

While the most common types of safety incidents occur in the workplace, those involving transport result in a high proportion of fatalities for the industry. For this reason, we have included a new indicator on land, air and marine transport safety.

Loss of control or containment at facilities such as well sites, processing plants, refineries and petrochemical plants can potentially result in serious harm to people and the environment. The oil and gas industry has established robust systems to address process safety risks with the aim of preventing such events. To monitor the performance of these systems, we have continued to evolve the process safety indicator introduced in 2010 and in 2020 we include additional reporting elements on well control, risk assessment and behavioural factors.

Product stewardship provides well-established industry practice to assess the health, safety and environmental risks of new fuels, chemicals and other products and to provide up-to-date information on existing products. Reporting on this topic is likely to remain material for downstream and oilfield service businesses that supply fuels, lubricants, chemicals or polymers.

HAZARDS, RISKS AND CONSEQUENCES

The industry's inherent hazards can range from the flammability and toxicity of hydrocarbon products to the vulnerability of its infrastructure or helicopter transport to facilities.

Companies should systematically manage the safety, health and security risks that these hazards present across their activities, including from major onshore or offshore development projects to downstream refining, distribution and retail operations, as well as petrochemical plants.

If those risks are not controlled, the potential consequences could include:

- fatalities, injuries or illnesses;
- contamination of land, water or air;
- long-term social or health impacts on communities;
- financial losses
- damage to corporate reputation.

SAFETY, HEALTH AND SECURITY

Security threats, to individuals, facilities and computer-based infrastructure are becoming more frequent and sophisticated. We have introduced a new indicator on security risk management to address this. In addition, indicator SOC-3 in Module 6 *Social* addresses the potential effects of security activities on human rights such as the rights of demonstrators, local residents and vulnerable groups.

The reporting guidance and indicators aim to strike a balance between providing quantitative 'lagging' data on the outcomes and consequences of safety, health and security risks, and quantitative and qualitative 'leading' measures that monitor the systems a company has in place to continuously improve performance and reduce risk.

Key points to address

A. Your overall approach to managing safety, health and security risks, including planned initiatives and measures to reduce risk and improve performance. Include management systems, auditing and assurance — as well as efforts to enhance leadership regarding these issues within your organization.

B. In addition to reporting on Module 2 *Governance and business ethics,* address specific aspects of your governance, policies and management systems that address safety, health and security issues. This can include crisis management, emergency preparedness and business continuity plans to respond to major incidents, epidemics or terrorist attacks. IPIECA, IOGP, API and ISO have published management system recommended practices that address safety, health and security risks [3–6].

C. Any safety, health and security event that had a significant impact during the reporting period, such as fatalities or extensive environmental / socio-economic impact, including outcomes of investigations and lessons learned to prevent recurrence.

D. Recent or planned enhancements, initiatives and campaigns by your leadership to improve safety, health and security performance. You can include process improvements, investments in equipment to protect individuals and asset integrity, as well as human factors initiatives designed to positively influence workforce behaviours and overall organizational culture.

E. Robust safety, health and security management systems rely on the cycle of continuous improvement. To support this, include any specific improvement plans, commitments or initiatives and describe how you monitor performance and the actions you have taken to achieve progress.

F. While safety, health and security reporting is predominately associated with operations, projects, products and services, you should also include information on how you manage risks as they relate to, for example, non-operated joint ventures, contractors, suppliers and local communities.

G. The processes you use in operations and projects that make substantial use of contracted resources. This can include how your management system addresses areas such as training and skills assessment, control of work and protective equipment, and performance review of contracted activities and personnel.

H. When discussing your workforce, particularly in quantitative terms, clarify the extent to which your data includes contractors as well as your employees. The guidance in Module 1 *Reporting process,* on developing a reporting boundary, can help you clarify your reporting scope.

I. Systems to manage safety, health and security risks related to the supply chain of your products, such as fuels, lubricants, plastics and other chemicals. You can refer to applicable regulatory frameworks as well as specific internal processes that provide product stewardship controls, such as product registration, data sheets and labelling provisions that provide transparency and confidence to customers when transporting, handling or using sold products. For service suppliers / contractors, you can describe risks and management requirements as they relate to materials such as drilling fluids and chemicals. Linked to ENV-7 in Module 4 *Environment,* you can provide information on how you are helping customers to reduce, reuse or recycle your non-fuel products manufactured from hydrocarbons, such as lubricants and plastics.

J. Your capability and processes to control process safety risks within your own operations, as well as information on how you apply this to non-operated joint ventures and contracted assets. This can include activities, such as drilling or hydraulic fracturing operations, where companies have put specific measures in place to prevent adverse events. Apart from the potential to cause direct harm to people, there are clear links between process safety and other issues / indicators in the Guidance, including environmental and socio-economic impacts, for example, from an oil spill (also see indicator ENV-6 in Module 4 *Environment*).

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

SHS-1

Safety, health and security engagement

WHY THIS MATTERS

Effective programmes bring together employees from all levels of a company – from managers to operators – to build a culture that recognises risks and values cooperation. Extending participation to contractors and other stakeholders, including local communities, schools, suppliers, customers and local authorities, will yield mutual benefits to reduce risks further. This indicator conveys your approach to strengthening risk awareness and management through constructive engagement with your workforce and other stakeholders on safety, health and security issues.

SCOPE

Describe the structure of your safety, health and security programmes and the processes you have in place to enable active involvement and consultations on healthy and secure working environments and good safety practices. You should include a description of how you integrate these programmes or processes into your overall management system, as well as how you enable participation at all levels.

The participation programmes and processes you might include could be:

- Policy and programme development, deployment and improvement.

- Safety, health and security orientation and training.

- Mechanisms for management and leadership to communicate with the workforce and other stakeholders to identify concerns and participate in initiatives to improve safety, health and security.

- Consultation and feedback mechanisms to improve the effectiveness of your safety, health and security measures, such as workforce health and safety steering committees, management of change consultation, safety and health culture surveys, community engagement events, or grievance mechanisms.

- Performance measurement reviews at regular workforce safety meetings that help you track progress towards continuous improvement.

- Workforce participation and representation in operational risk assessments.

- Regular joint participation of your workers and managers in safety, health and security processes, such as proactive risk reporting, site inspections, audits and activity observations, as well as interventions. This should include the steps you take to include all workers, such as part-time employees, home-workers and contractors, to avoid divisions, discrimination or exclusion.

- Formal meetings with local or national authorities, safety, health and security specialist organizations, unions or academic / international institutions to improve processes and performance. This could include forums to address the UN Sustainable Development Goals, such as Good Health and Wellbeing (Goal 3).

SAFETY, HEALTH AND SECURITY

INDICATORS

SHS-1
Safety, health and security engagement ▶

SHS-2
Workforce and community health

SHS-3
Occupational injury and illness incidents

SHS-4
Transport safety

SHS-5
Product stewardship

SHS-6
Process safety

SHS-7
Security risk management

BASIS

This leading indicator is primarily qualitative. If available, quantitative data on the extent of your engagement programmes and initiatives may be included and consolidated within your reporting boundary using the 'workforce approach' (see Module 1 *Reporting process* for more on reporting boundaries).

Contractors are often responsible for their own safety and health participation programmes. You should consider describing the way in which your programmes interface with those of your contractors and business partners working on your sites.

REPORTING ELEMENTS

CORE

C1	Describe your approach to managing workforce participation in safety, health and security.
C2	Outline your overall approach to safety, health and security training for the employees and contractors that make up your workforce. Include information on whether training initiatives are extended to other parties, such as non-operated joint ventures, business partners, suppliers, security forces, public emergency response groups, consumers and local communities.
C3	Discuss the coverage of your safety, health and security engagement programmes and the extent to which you include contractors.

ADDITIONAL

A1	Provide case studies on specific activities at your facilities that illustrate how you apply your management approach. For example, local workforce engagement programmes, verification processes, outcomes or actions based on assessment of results.
A2	Describe your efforts and initiatives to work with external stakeholders to improve safety, health and security, supported by case studies or examples.
A3	Summarize your participation in national or international forums to improve safety, health and security practices.

SHS-2

Workforce and community health

WHY THIS MATTERS

Proactive assessment and management of health risks and opportunities can improve workforce satisfaction and business performance. Extending health programmes to workforce families, the local community and other stakeholders promotes good health and wellbeing and has mutual long-term benefits in managing health risks, such as infectious diseases. This indicator outlines your programmes and processes to address health risks and create opportunities to promote good health and wellbeing in your workforce and the wider community.

SCOPE

Processes and indicators that specifically support health are described in the IOGP-IPIECA guides *Health management in the oil and gas industry* [5] and *Health performance indicators: A guide for the oil and gas industry* [6]. Key aspects covered by these documents include:

- Health risk assessments (HRAs) and related tools to help your health protection planning when designing new projects, products and operations or modifying existing processes, products or operations.

- Health risk mitigation and management, which covers risks such as fitness for task, worker welfare and wellbeing, occupational health, food and water safety, fatigue, stress, substance abuse, pandemics and infectious diseases, as well as environmental and security factors.

- Health surveillance, based on methodologies, such as hearing and blood tests, to check for impacts from an exposure to individuals.

- Healthcare delivery, including medical emergency management, infrastructure and response planning.

- Health reporting and records management, which outlines the steps you take to ensure documents, procedures and records are up to date, accessible and meet quality, confidentiality, legal compliance and retention standards.

- Social responsibility and shared values, and general promotion of good public health.

- Health performance indicators (HPIs), covering health management, leading indicators and lagging indicators.

Engaging your workforce is an effective way of understanding the opportunities that exist to maintain and improve health (see also SHS-1).

INDICATORS

SHS-1
Safety, health and security engagement

SHS-2
Workforce and community health

SHS-3
Occupational injury and illness incidents

SHS-4
Transport safety

SHS-5
Product stewardship

SHS-6
Process safety

SHS-7
Security risk management

SAFETY, HEALTH AND SECURITY

INDICATORS

SHS-1
Safety, health and security engagement

SHS-2
Workforce and community health ▶

SHS-3
Occupational injury and illness incidents

SHS-4
Transport safety

SHS-5
Product stewardship

SHS-6
Process safety

SHS-7
Security risk management

BASIS

The indicator is primarily qualitative but can be supported with quantitative occupational illness incident rates as reported in indicator SHS-3. Workforce health issues vary widely by location, so local case studies can help you demonstrate how you manage these issues.

You should consolidate quantitative workforce data within your reporting boundary using the 'workforce approach' (see Module 1 *Reporting process* for more on reporting boundaries). You should determine significance (see *Glossary*) when considering reporting health issues by type or location.

REPORTING ELEMENTS

CORE

C1	Describe your processes and programmes for identifying and addressing significant workforce health issues at the local, regional and global level, together with any results and plans.
C2	Describe aspects of your management systems that are specific to health and any improvements you have planned or made.
C3	Describe your proactive wellness initiatives that encourage the adoption of healthier lifestyles, including nutrition, fitness and awareness of health risk factors.

ADDITIONAL

A1	Outline your measures and strategies to extend health initiatives to local communities and other stakeholders.
A2	Provide case studies of health impact assessments.
A3	Describe your health measures to prevent, reduce and manage infectious diseases, both within your workforce and within the local community affected by your activities, including voluntary testing, treatment, counselling and return to work.
A4	Describe your health training programmes for managers and workers, including programmes that address diversity, cultural and personal beliefs.
A5	Discuss the main health challenges you face at different operating locations, including how you address local health issues, such as access to clean water and sanitation.

SHS-3

Occupational injury and illness incidents

WHY THIS MATTERS

Workforce occupational incident injury and illness rates are well-established industry metrics that enable evaluation of health and safety performance, including benchmarking. Incident reporting and investigation provides learning opportunities to prevent recurrence and promote improvement in management systems. This indicator reports your data on workforce injuries or illness caused by work-related incidents and offers an opportunity for you to discuss how you learn from incidents and improve performance.

SCOPE

A number of organizations have published guidelines for reporting injuries and illnesses, including API, IOGP, the U.S. Occupational Safety and Health Administration (OSHA) [7] and national regulatory bodies. While broadly aligned, there are some differences in definitions and exemptions. You should, therefore, clearly state the reporting guidelines that you are using. API's occupational safety and health standards are updated regularly, including the 2019 fourth edition of Recommended Practice 54 (RP 54) *Occupational Safety and Health for Oil and Gas Well Drilling and Servicing Operations* [8]. IOGP's *Safety data reporting user guide* [9] is updated annually and is widely used by upstream oil and gas companies for injury reporting.

The IOGP and OSHA guidelines provide details on how a work-related incident is determined and outline the appropriate categorization of incident severity, including criteria such as medical treatment beyond first aid, restricted duty, lost time or death. It is important for overall reporting integrity that companies report injury and illness classifications accurately and consistently.

A work-related incident, such as an event or exposure, is recordable if it either caused or contributed to:

- a new injury or illness; or
- an exacerbation of a pre-existing condition.

The guidelines provide a list of exclusions that are not considered work-related.

If incidents involving your operations result in fatalities or serious injuries to third parties, you should report these events separately.

You should report total recordable injury and illness, lost time injury and illness and fatal accident rates separately for company employees and contracted workers. You should also report injury and illness rates separately. You may include related data, such as combined rates for the total workforce, numbers of incidents and actual hours worked.

You should set your data within the appropriate context, which can include interpretation of incident trends, or your plans to achieve management system objectives.

You should describe the impacts, actions and lessons learned from significant incidents (which are often referred to as 'major' incidents). Your description should provide an appropriate level of information that takes into account possible legal and confidentiality constraints. Guidance on the term 'significance' is provided in the *Glossary*. Such

incidents are defined by IOGP as 'significant incidents causing, or having the potential to cause, multiple serious injuries or fatalities.

We also encourage you to discuss how lessons learned from investigations are shared, as appropriate in industry working groups, benchmarking, or other groups that share good practices. This can include lessons learned from high potential events, which were near-miss events that could have resulted in a fatality in other circumstances.

You can also describe how your lessons learned on significant incidents and high potential incidents are shared inside your company and externally for the purpose of learning to avoid recurrence.

Reporting incidents provides 'lagging' measures of safety and health performance. You should consider establishing and reporting appropriate 'leading' safety measures that relate to your activities and people's behaviours. Leading measures include safety management processes such as training, auditing and engagement, observations and interventions (see SHS-1). Leading measures include near-miss events that did not result in injury or illness. Investigating and reporting of near-miss, and high potential events can provide insights and learning of equivalent value when subjected to the same level of investigation as work-related incidents that had harmful consequences.

BASIS

The indicator is quantitative and reportable at a global level, and may be supported by qualitative descriptions of incidents, responses and plans. You should consolidate quantitative workforce injury and illness data within your reporting boundary using the 'workforce approach' (see Module 1 *Reporting process* for more on reporting boundaries). The workforce includes both your employees and contractors.

You should clearly state your calculation method for determining frequencies and rates by indicating the number of workhours employed as the normalization factor. The recommended factors are those defined by IOGP: per one million hours worked for injury or illness frequencies, and per 100 million hours worked for fatality rates. Companies may also use common OSHA incident reporting factors, which are per 200,000 hours worked for injury or illness frequencies, and per 100 million hours worked for fatality rates. You should clearly state your basis for calculating frequencies and rates.

REPORTING ELEMENTS

INDICATORS

SHS-1
Safety, health and security engagement

SHS-2
Workforce and community health

SHS-3
Occupational injury and illness incidents

SHS-4
Transport safety

SHS-5
Product stewardship

SHS-6
Process safety

SHS-7
Security risk management

CORE

C1	Report your work-related injuries separately for employees and contractors, including: • total recordable injury frequency; • lost time injury frequency; • number of fatalities (excluding illness fatalities); • fatal accident rate (excluding illness fatalities); and • fatal incident rate.
C2	Describe any significant incidents that occurred during your reporting year, detailing the impact and actions taken in response.
C3	Describe any initiatives to improve your safety performance.
C4	Describe safety incident trends and the most common causes of work-related incidents together with any initiatives you have introduced to address these causes.

ADDITIONAL

A1	Report your occupational illnesses separately for employees and / or contractors: • Total recordable illness frequency • Lost time illness frequency • Number of illness fatalities
A2	Describe high potential events, including how you have shared lessons learned.
A3	Discuss whether you have implemented company-wide life-saving rules, or equivalent, and how you have communicated and monitored those rules.
A4	Describe how you apply leading health and safety measures, which may include: • reporting and analysis of near-miss events, including first aid and 'no-treatment' events; • leading indicators, hazard awareness and proactive hazard reporting programmes, such as peer-to-peer observations / interventions and feedback sessions, to demonstrate workforce engagement and the maturity of your safety culture; • safety management system audits and site / activity assessments that review the design and effectiveness of your system and improvement plans; • incident investigation completion and corrective action closure; • workplace job safety / hazard analysis completed; and • training to improve safety and health performance (including activities designed to raise awareness and improve competency of the workforce).

**SAFETY, HEALTH
AND SECURITY**

INDICATORS

SHS-1
Safety, health and security engagement

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Workforce and community health

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Product stewardship

SHS-6
Process safety

SHS-7
Security risk management

SHS-4
Transport safety

WHY THIS MATTERS

Management practices and performance on transport safety address a major cause of fatalities and injuries in the oil and gas industry. This indicator describes your approach and practices for land, air and / or marine transport safety, supported by quantitative data on incidents.

SCOPE

While it is likely that land transport is a material issue for most companies, we would also encourage you to use this indicator to report on air transport, such as helicopter and fixed-wing aircraft, and marine transport, such as boats, ships or tankers.

IOGP has provided scope definitions and exclusions [10], with examples, for motor vehicle crashes (MVC). You should classify pedestrians struck by a vehicle as land transport incidents and report third party fatalities separately.

IOGP has also defined aviation events for reporting and published Report 590: *Aircraft Management Guidelines* [11], which documents safety risks related to contracted and non-contracted aviation services, as well as the use of scheduled airlines and non-scheduled aircraft. Report 590 includes management system reporting requirements for accidents and incidents, including near-miss events.

BASIS

The indicator is both quantitative and qualitative. Quantitative incident data should be consolidated within your reporting boundary using the 'workforce approach' (see Module 1 *Reporting process* for more on reporting boundaries). The workforce includes both your employees and contractors. You may support quantitative data with qualitative descriptions of incidents, responses and plans.

For reporting MVCs in line with IOGP guidelines (see *References*) you should:

- Classify MVCs as catastrophic (fatal), major, serious or other, following IOGP's definitions, which are consistent with injury categorizations in indicator SHS-3.

IOGP BENCHMARKING ON LAND AND AVIATION TRANSPORTATION

The IOGP Data Series Reports *Safety performance indicators – Motor Vehicle Crash Data* [12] summarizes analysis of safety MVC data and includes important insights, such as:

- land transport-related incidents have been, historically, the single largest cause of fatalities in IOGP member company operations;

- since 2008 the number of MVC incidents has fallen significantly; and

- not wearing a seatbelt has been the main reason why an MVC resulted in a fatality.

Most of the IOGP participating companies report MVC data, including driving distance, to provide the basis for a normalized MVC rate, supporting the practical nature of this new indicator to track performance improvement over time.

IOGP member companies also benchmark helicopter and fixed wing aircraft accidents resulting in fatalities or injuries, including rates based on hours flown for upstream and downstream operations [13]. The data shows that the highest exposure to the risk of fatality is associated with helicopter passenger transportation, particularly for offshore travel.

- State distances travelled in millions of kilometres, in line with IOGP benchmarking guidelines.

- Determine MVC rates by using the distance travelled per million kilometres as your normalization factor.

- Categorize total catastrophic, major and serious as severe MVCs, and normalize against distance travelled to calculate a severe MVC rate per million kilometres driven as your primary metric for reporting. The 'other' MVC metric category tends to provide less reliable data, due to reporting variability. However, you may report on this separately or combined to provide a total MVC rate.

You should report aviation accidents separately for helicopter and fixed-wing aircraft transport. Flight hour data is also recorded to derive normalized rates for the number of accidents per 100,000 flight hours, in line with IOGP benchmarking and aviation industry practice.

REPORTING ELEMENTS

CORE

C1	Describe your risk management approach to transport safety, including policies and practices required within your management systems.
C2	Report the number of work-related workforce (employee or contractor) fatalities caused by transport incidents.
C3	Describe your efforts to engage with external parties, including local communities and authorities, to improve transport safety, including education and training and implementation of new technology.

ADDITIONAL

A1	Report and discuss the number of MVCs by severity. If available, state the total distance driven in kilometres and the normalized severe MVC rate per 100 million kilometres.
A2	Report and discuss the number of aviation events you have recorded and the rate of aviation events per 100,000 flight hours.
A3	Provide qualitative descriptions of any significant incidents that occurred during the reporting year, including your response and plans to prevent recurrence.
A4	State any initiatives to improve transport safety and report on your progress.
A5	Discuss how you apply leading indicators that focus on prevention of transport safety incidents, including aviation and / or shipping near-miss data, and lessons learned.
A6	Outline your participation in significant national or international road or other transport safety initiatives.
A7	Describe new vehicle, vessel or aircraft technologies or specifications that you use to improve transportation safety.
A8	Describe your processes to ensure vehicles, aircraft and vessels are assessed and maintained for safe use.

SAFETY, HEALTH AND SECURITY

INDICATORS

SHS-1
Safety, health and security engagement

SHS-2
Workforce and community health

SHS-3
Occupational injury and illness incidents

◀ **SHS-4**
Transport safety

SHS-5
Product stewardship

SHS-6
Process safety

SHS-7
Security risk management

SHS-5

Product stewardship

WHY THIS MATTERS

For customers and other stakeholders to have confidence in your products, it is important to effectively communicate health, safety and environmental (HSE) hazards and your risk mitigation and control measures. This indicator outlines the systematic processes you have established to identify and manage product HSE issues and your approach to assessing and communicating risks related to use, handling and transport of your products.

SCOPE

Industry understanding of product HSE risks is based on experience and knowledge of toxicological and exposure information. Countries regulate and manage these product-related risks differently, which can be challenging for companies that operate across national borders. New products must be assessed before going to market so that a company can recognize and manage any hazards or risks. Safety Data Sheets (SDSs) are a key form of communication to employees and across the supply chain including end users. IPIECA has updated *The application of Globally Harmonized System (GHS) criteria to petroleum substances* [14] to facilitate appropriate and consistent classification and labelling of crude oil and petroleum substances.

This leading indicator applies to risk management of your consumer products, such as fuels, petrochemicals, hydrocarbon-derived polymers and lubricants, as well as products within the industry's supply chain. HSE risks are present throughout the product lifecycle, from handling and use to recycling or disposal, if applicable. You may also include chemical products supplied by service companies that support your operations. Product stewardship concerns the processes companies apply to manage the use and transportation of product risks to customers using three elements:

- Product HSE risk characterisation to identify and document risks and address findings, including:
  › health risks based on toxicology hazard information and human exposure information;
  › safety risks, especially those related to significant incident risks; and
  › environmental risks that relate to the impact of a release, both intended (permitted discharges) and unintended (spills).

- Customer communication that provides SDSs and other product health, safety and environmental hazard or risk management information. Also, where appropriate, product stewardship information to those who transport and handle your products throughout their life-cycle.

- Product HSE management system, including processes that:
  › identify HSE hazards and manage risks;
  › specify and communicate precautions for using, storing, handling, transporting and disposing of products;

› provide guidance on the safe use of your products, as well as beneficial reuse and recycling;

› improve the knowledge of product risks;

› comply with regulations in, and transportation between, relevant markets, or adopt reasonable standards of care where regulations do not exist or are inadequate to promote safe product use; and

› track and evaluate any product stewardship incidents.

BASIS

The indicator is qualitative and reportable at a global level and you may support it with quantitative data on the extent of your programmes.

Products here generally include hydrocarbons and their derivatives but can also be interpreted more broadly to include other types of products, as appropriate to your company's business activities.

The indicator has linkages to indicator ENV-7 in Module 4 *Environment* but excludes operational environmental impacts covered within the module.

We have not described any normalization methods for these indicators due to the extensive range of product types and diversity of regulatory regimes.

REPORTING ELEMENTS

CORE

C1	For petroleum consumer products, such as fuels, petrochemicals and hydrocarbon-derived polymers and lubricants, discuss your approach to product assessments, for new and existing products and how you address any findings.
C2	Describe how you communicate product HSE hazards and risk controls to your customers and the general public, including information on transportation and handling of products.
C3	Describe your approach to health, safety and environmental management of products.

ADDITIONAL

A1	Report on your activities to monitor, track, evaluate and manage product-related incidents.
A2	Describe your efforts to encourage sustainable materials consumption, including approaches to reduce, reuse and recycle your products, such as lubricants and plastics.
A3	Report on your activities to engage suppliers, contractors, and downstream users on product stewardship.
A4	Provide quantitative data to demonstrate the scale of your product stewardship activities, such as the number of product assessments you conduct, for new and existing products, or the percentage of your SDSs that meet requirements within their applicable review periods.

INDICATORS

SHS-1
Safety, health and security engagement

SHS-2
Workforce and community health

SHS-3
Occupational injury and illness incidents

SHS-4
Transport safety

SHS-5
Product stewardship

SHS-6
Process safety

SHS-7
Security risk management

SHS-6

Process safety

WHY THIS MATTERS

Major incidents may be caused by an uncontrolled release of gas or fluids from upstream or downstream oil and gas processing facilities, midstream assets and exploration production wells. Due to the potential consequences to people, property and the environment, it is important to have established robust process safety management systems and to convey your commitment and approach to preventing major incidents. This includes transparent disclosure of process safety events based on industry-standard key performance indicators. Reporting may also include information on leading indicators to be more predictive of significant incident risks and to assess the strength of preventive barriers. In addition, the industry has established lagging and leading indicators to record and manage well control incidents.

SCOPE

The detailed definition of this indicator is based on the consequence criteria defined by API Recommended Practice 754 – *Process Safety Performance Indicators for the Refining and Petrochemical Industries* [15] and IOGP's updated Report 456 entitled *Process safety – Recommended practice on Key Performance Indicators* [16], which covers drilling and production processes.

These documents describe four tiers that provide a range of lagging and leading metrics as shown in Figure 5.1. Both industry and international regulators have adopted Tier 1 and Tier 2, and API and IOGP publish industry benchmarking data submitted by oil and gas companies. The other reporting elements are based on Tiers 3 and 4, which are site-specific.
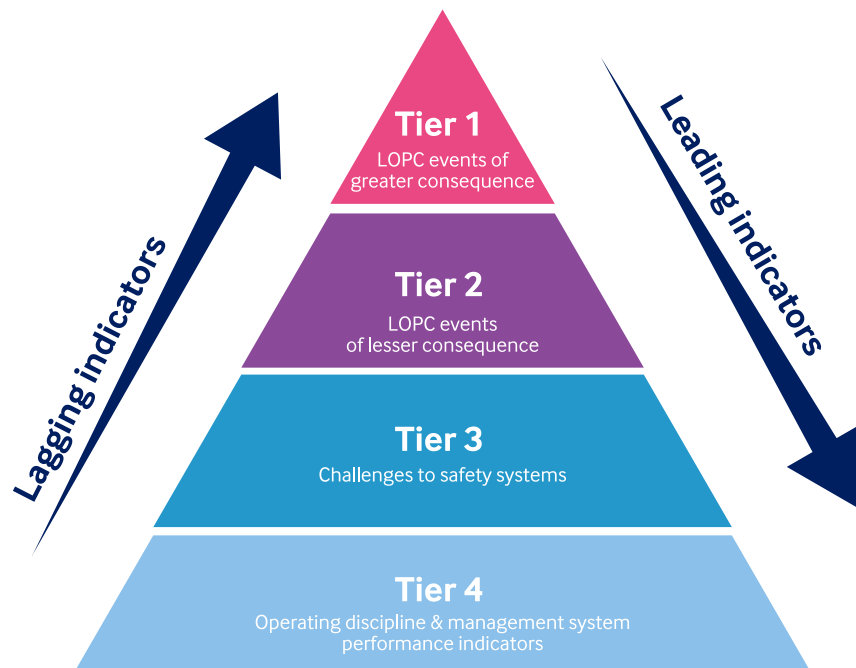

Figure 5.1: The four tiers of lagging and leading indicators

5.16

API RP 754 focuses on refining and petrochemical operations but has wider applicability. IOGP has developed definitions for upstream production and drilling activities, which are published within its annual *Health and Safety data reporting system users' guide*.

Summary of Tier 1 and 2 process safety event definitions

A Tier 1 process safety event is defined by API RP 754 as an unplanned or uncontrolled loss of primary containment (LOPC) release of any material, including non-toxic and non-flammable materials, such as steam, hot condensate, nitrogen or compressed air, from a process that results in one or more of the following consequences:

1. An employee, contractor or subcontractor 'days away from work' injury or fatality.

2. A hospital admission and / or fatality of a third party.

3. An officially-declared or precautionary community evacuation or community shelter-in-place.

4. Fire or explosion damage greater than or equal to US$100,000 of direct cost.

5. An engineered pressure relief discharge — whether directly to the atmosphere, or via a downstream destructive device — or an upset emission from a permitted or regulated source, that is in excess of the Tier 1 threshold quantities detailed in API RP 754, in any one-hour period, that results in one or more of the following consequences:

   - rainout;
   - discharge to a potentially unsafe location;
   - an onsite shelter-in-place or on-site evacuation, excluding precautionary on-site shelter-in-place or on-site evacuation; or
   - public protective measures, such as road closures, including precautionary public protective measures.

A Tier 2 process safety event is defined similarly but with less severity than the Tier 1 criteria above. The lower thresholds include a recordable injury for consequence 1 and financial fire damage of US$2,500 for consequence 3, as well as lower discharge thresholds for consequence 5. See API RP 754 and IOGP's Report 456 for detailed definitions and guidance.

It should be noted that any process safety event causing, or having the potential to cause, a fatality of a worker or member of the public, is a regarded a high potential (HiPo) event. Investigation and review of HiPo events can provide important lessons for industry, as described in indicator SHS-3.

We recommend that companies report both Tier 1 and 2 process safety events, as well as providing context to broadly describe the nature of the event, the consequences and subsequent interpretation of the data. This includes describing any significant process safety events, where you determine significance based on the guidance in the definitions below and as provided in the *Glossary*.

In addition to Tier 1 and 2 reporting, we encourage you to develop, select, use and evaluate site-specific process safety and asset integrity leading metrics. A leading metric reporting programme supports the continuous improvement of your safety performance. These Tier 3 and 4 metrics support your actions to improve safety barriers and management system elements as identified through past incidents, your experience with risk controls and knowledge of your specific facilities.

INDICATORS

SHS-1
Safety, health and security engagement

SHS-2
Workforce and community health

SHS-3
Occupational injury and illness incidents

SHS-4
Transport safety

SHS-5
Product stewardship

SHS-6
Process safety

SHS-7
Security risk management

Tier 3 and 4 metrics are applied at site level to judge the performance of local management system processes and programmes over time. These metrics are generally more difficult to normalize, compare or benchmark across or between companies.

You can also record well control incidents and follow a similar four-level system of severity, depending on the extent of well control failures with the potential to cause releases or damage.

BASIS

The indicator is primarily quantitative. The total number of process safety events should be reported at a global level and can be supported by qualitative descriptions of significant incidents, responses and plans. You should consolidate quantitative data within your reporting boundary using the 'operational approach' (see Module 1 *Reporting process* for guidance on reporting boundaries).

To provide comparison between major activities or companies of different scale, you can express the number of process safety events as a normalized rate. As there is no uniformly applicable normalization factor for process safety indicators based on facility configuration, API and IOGP use worker exposure hours (as used in indicator SHS-3 for calculation of occupational injury and illness incidents). Thus, a process safety event rate (PSER) can be defined as the total number of Tier 1 events per million hours worked, and similarly for Tier 2 events. As a convenient, easily obtained factor for Tier 1 and 2 indicators, the PSER provides a simple basis for year-to-year trends for comparison between similar business activities.

The number of Tier 1 and Tier 2 events recorded by a single asset is typically low. For this reason, PSER data is likely to be statistically valid when aggregated and suitable for reporting at the company or industry level. In contrast, Tiers 3 and 4 will often be site-specific and not usually suitable for aggregated data reporting in company reports or for industry benchmarking.

REPORTING ELEMENTS

CORE

C1	Number of Tier 1 process safety events reported separately for each major business activity, such as refining or upstream.
C2	Provide qualitative descriptions of any significant process safety events that occurred during the reporting year, including your response and lessons learned to prevent recurrence.
C3	Explain how you review your assessment and management of process safety risks.

ADDITIONAL

A1	Number of Tier 2 process safety events, reported separately for each major business activity, such as refining or upstream.
A2	Describe how you assess, monitor and review process safety and well control risk control barriers.
A3	Describe your approach and application of Tier 3 and 4 leading metrics, such as: • demand on safety systems intended to protect against LOPC events, such as pressure relief valve release, safety instrumented system events; • operating envelope deviations; • the effectiveness of your management system; • training; and • management of change and permit to work.
A4	Describe how you incorporate cultural and human factors into process safety, including leadership, risk awareness and employee development.
A5	State any commitments or targets you have that relate to process safety and report your progress.
A6	Report process safety event rates (see normalization notes above).
A7	Report number of Level 1, 2 and 3 well control incidents and separately describe any Level 1 incidents.

INDICATORS

SHS-1
Safety, health and security engagement

SHS-2
Workforce and community health

SHS-3
Occupational injury and illness incidents

SHS-4
Transport safety

SHS-5
Product stewardship

◀ **SHS-6**
Process safety

SHS-7
Security risk management

DEFINITIONS

• **Process safety:** the discipline of preventing an unplanned or uncontrolled release of hazardous material, for example a loss of primary containment (LOPC), due to an unintended event or condition. For example, this could be the release of hydrocarbons that, if ignited, could result in an explosion or fire, leading to a major incident.

• **Significance:** A judgement determined by the company on whether a specific aspect, impact, event, action or other type of outcome of a company's activities or performance is sufficiently important in terms of management and / or reporting. The judgement may be informed by a number of factors such as the extent of actual or potential consequences, local stakeholder concerns, regulatory or legal exposure, or risk / impact assessment processes.

Note: in this Guidance, 'significant' applies to individual, usually localized outcomes whereas 'material' applies to an entire issue which can be informed by multiple outcomes across the entire company and reflects the issue's relevance to the company's management and stakeholders overall. A significant localized impact, such as a major safety incident, can result in a material issue for the company as a whole (or affect the materiality of an existing issue).

SHS-7

Security risk management

WHY THIS MATTERS

As a global industry with vulnerable assets, hostile actions by third parties can present threats to life, the environment, socio-economic stability and operational disruption. This indicator gives you the opportunity to explain how you manage and monitor security challenges to ensure your company's resilience to security risks and your capacity to cope with security threats.

SCOPE

Security risks and threats at the facility or asset level can include:

- political or social unrest;
- terrorism or armed conflict;
- sabotage, or other criminal activity (e.g. theft);
- insider actions;
- maritime / airline hijacking; or
- cyber-attacks.

Security risks are also important at an individual level, particularly during travel, such as the risk of:

- assaults / muggings, kidnapping;
- theft of proprietary documentation or electronic media;
- identity data loss; or
- fraudulent behaviour.

IOGP Report 555, *Conducting security risk assessments (SRA) in dynamic threat environments* [17] provides an extensive set of examples of security threats.

Consequences of security incidents can include:

- fatalities, injuries or illness, reportable under indicator SHS-3, and reportable to IOGP under incident category 'Assault and violent act';
- process safety events due to sabotage or wilful damage, such as loss of hydrocarbon containment, fires or explosions, reportable under SHS-6, and reportable to IOGP as incident category 'Process safety events due to sabotage or wilful damage'; and
- environmental impacts – this may include spills reportable under indicator ENV-6.

Human rights can be put at risk by security services that maintain the safety of operations. Reporting on this risk is the subject of indicator SOC-3 in Module 6 *Social*.

IOGP and API have issued several publications on security management for the oil and gas industry that provide additional guidance (see *References, links and other sources*).

BASIS

This indicator is qualitative and reportable at a global level and may be supported by local case studies and examples or by quantitative data, such as training records.

REPORTING ELEMENTS

CORE

C1	Describe your approach to security management for existing operations, projects planned or underway and new locations for business activities, including assessment of threats, vulnerabilities and risks.
C2	Outline awareness and training processes that address security risks and threat response procedures for your workforce and how you make members of the community aware of relevant security risks.
C3	Outline your management approach to promoting resilience to cybersecurity threats or attacks.

ADDITIONAL

A1	Provide qualitative descriptions of any significant security events that caused harm to people, the environment or business operations, including your response and plans to prevent recurrence.
A2	Outline your standard security measures for monitoring potential threats and security risks.
A3	Outline your management procedures and plans in the event of a security crisis, including measures to maintain business continuity.

INDICATORS

SHS-1
Safety, health and security engagement

SHS-2
Workforce and community health

SHS-3
Occupational injury and illness incidents

SHS-4
Transport safety

SHS-5
Product stewardship

SHS-6
Process safety

SHS-7
Security risk management

References, links and other sources

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Module 6

Social

Introduction

Access to affordable energy can change lives by improving quality of life, creating economic wealth and lifting people out of poverty. However, extracting, processing, transporting and selling the resources needed to create that energy can also stress local ecosystems and enable inequalities within society. Since oil and gas are found all over the world, the industry finds itself operating in locations with multiple social and environmental challenges. Instead of the intended socio-economic development, history shows us that, in some cases, the industry's presence can exacerbate these challenges. Investor and stakeholder expectations of how companies manage community and indigenous relations continue to expand.

To address these risks, oil and gas companies aim to act responsibly by avoiding, mitigating and managing the negative impacts with which they may be involved through their own activities and business relationships. This includes respecting human rights. Many also make commitments to support socio-economic development, such as providing access to employment, procuring local goods and services, improving infrastructure, enhancing public health outcomes, and developing local businesses and workforce skills.

This module embeds human rights considerations throughout. This is because human rights cut across many areas and the module uses it as a lens through which to consider other social issues. It is also relevant to other sections in this Guidance, such as Module 4 *Environment*, and Module 5 *Safety, health and security*. It is good practice to discuss how these issues are interrelated and systematically managed.

HUMAN RIGHTS

Every individual, no matter who we are or where we are born, is entitled to the same basic rights and freedoms without discrimination. Human rights are inalienable and universal, covering civil, political, cultural, economic and social rights. They cover a wealth of issues, from the right of non-discrimination and freedom from slavery to the right to freedom of movement and to participate in public life.

The Universal Declaration of Human Rights (UDHR), drafted and agreed by representatives of a wide range of political, religious and culture perspectives, provides the most authoritative list of internationally recognized rights [1]. It has been codified through two fundamental international treaties, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights. Together, the UDHR and the two Covenants comprise the International Bill of Human Rights [2]. While these agreements are not technically legally binding for companies, there is an expectation that businesses will respect all internationally recognized human rights.

The business and human rights landscape is an evolving one, and the UN's Human Rights Council endorsement of the United Nations Guiding Principles on Business and Human Rights (UNGPs) [3] in 2011 is a significant milestone. The UNGPs clarify roles for governments and

SOCIAL

business and provide a global standard of expected conduct for businesses, over and above compliance with domestic laws and regulations. They set out:

- the state duty to protect human rights;

- the corporate responsibility to respect human rights; and

- access to remedy for victims of business-related abuses.

After the endorsement of the UNGPs, other international guidelines have been updated to align with them, including the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises [4], the International Finance Corporation Performance Standards [5], and the tools and resources of the UN Global Compact [6]. The UNGPs have been reinforced by regulatory developments in several countries, such as modern slavery laws in the UK and Australia, mandatory human rights due diligence law in France and the child labour law in The Netherlands.

Consistent with the UNGPs, oil and gas companies should respect all human rights and exercise ongoing due diligence to identify, prevent, mitigate and remedy adverse human rights impacts in which they may be involved. This includes preventing and addressing human rights issues in the supply chain in line with the UNGPs. Good supplier and contractor management can help a company identify and address human rights risks, which enhances the security of their supply chains and reduces associated operational, reputational, legal and financial risks.

The UNGPs expect companies to focus their human rights disclosure on the most severe actual and potential impacts on human rights associated with their activities and business relationships. Severity is determined by those impacts that would be greatest in terms of scale, scope and remediability. The distinction in reporting terms, is that the starting point for disclosure is, therefore, risk to human rights rather than risk to business, while recognizing that where impacts on human rights are most severe, they converge strongly with risk to the business as well. The UNGPs Reporting Framework [7] introduces the concept of salient human rights. A company's salient human rights issues are those

Human rights due diligence is set out in the UNGPs on Business and Human Rights. It has four main components that inform and are informed by policy commitments, meaningful stakeholder engagement, grievance and remedy.

Figure 6.1: Human rights due diligence

human rights that are at risk of the most severe potential negative impact through its activities or business relationships.

Similarly, respecting human rights is key to oil and gas operations for maintaining safe and secure operations. It involves understanding how the use of private or public security affects any pre-existing community tensions or situations of conflict, ensuring that the company does not become complicit in breaches of international law.

The Voluntary Principles on Security and Human Rights (VPs) [8] are designed to guide extractive industry companies on how to respect human rights when managing safety and security in their operations. By implementing the Principles, companies can align their policies and procedures with an operating framework that encourages respect for human rights.

LABOUR PRACTICES

Companies are expected to treat all workers with respect and dignity, prevent discrimination and provide just and favourable work conditions.

Meaningful engagement with your workforce is an important tool in creating a positive company culture, with high motivation and satisfaction in pay and working conditions. It is essential that a company has systems in place to allow workers, and workers in their supply chain, to raise grievances without fear of retaliation and with an expectation that they will be addressed. Success relies on a systematic process underpinned by robust policies and procedures.

While different countries may define labour rights in different ways, depending on specific issues, there are internationally recognized standards. These are provided by the conventions and non-binding recommendations negotiated through the International Labour Organization (ILO) [9]. The four core labour standards, set out in eight ILO Labour Conventions designated as fundamental by the ILO governing body, include:

- freedom of association and the right to collective bargaining;

- elimination of forced and compulsory labour;

- abolition of child labour; and

- elimination of discrimination in the workplace.

These four standards also form the basis of several principles within the UN's Global Compact. With the 1998 adoption by the ILO Conference on the Declaration on Fundamental Principles and Rights at Work [10], all ILO member states are obliged to recognize the rights in the eight conventions as universal, irrespective of the relevant conventions' ratification status.

Apart from the eight fundamental conventions, ILO labour standards include up to 80 other conventions and recommendations, which have been ratified or adopted, and integrated into national legislation and regulations to varying degrees. Of particular relevance to the oil and gas industry are standards that address specific groups such as indigenous and tribal peoples, migrant workers, seafarers and fishermen, or cover subjects such as working time, employment security, wages, vocational guidance and training, and occupational health and safety. While these conventions and standards are not legally binding on companies, following international best practice, together with effective implementation of aligned corporate policies and processes, can help companies meet or exceed national labour standards.

Modern slavery is a term used in policy and law to describe forms of exploitation which constitute serious violations of human rights, including human trafficking and forced labour. The ILO have developed a set of indicators of forced labour that include restriction of movement, physical and sexual violence, retention of identity documents, withholding of wages, debt bondage, abusive working and living conditions and excessive overtime. There is strong interest from external stakeholders such as governments, non-governmental organizations (NGOs), the media and investors, in knowing more about what companies are doing in this area, as well as an evolving regulatory context, both from 'home countries' (such as the UK Modern Slavery Act) and through 'host country' labour law reforms.

Company and supply chain labour rights issues are complex and multifaceted, covering, for example, forced labour and human trafficking, freedom of movement, worker grievance mechanisms, supplier and subcontractor management, working hours and pay, health and safety and welfare principles. As well as being committed to ensuring the health, safety, and well-being of their workforce and of workers in their supply chain, oil and gas companies should recognize that better welfare correlates with better business results, and that this can be achieved through greater respect for the rights of workers in the supply chain. An area of common saliency for the oil and gas industry in terms of the labour rights risks associated with modern slavery is the contracted workforce that the industry relies on to develop and conduct large scale operations, hence the focus of the new indicator in this 4th edition of the Guidance (see SOC-4).

COMMUNITY ENGAGEMENT

Successful, sustainable oil and gas operations rely on effective community engagement. Building mutual respect, trust and confidence means engaging potentially affected rightsholders. Done well, community engagement helps companies identify, prevent and address adverse human rights impacts and can foster acceptance as the community starts to see benefits to their livelihoods and wellbeing.

HUMAN RIGHTS AND DEVELOPMENT

A human rights-based approach to development includes the principles of participation, non-discrimination, transparency, accountability and empowerment. Broadly speaking it can be defined as: 'a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights'.

On the other hand, a lack of consultation and collaboration can lead to adverse impacts on people and contribute to disruption of project planning or operations, delays, rising costs, legal challenges and the potential escalation of local issues to the national or even a global stage.

The many facets of engaging with local communities may include, but not be limited to, topics such as local environmental impacts, traffic, noise, dust and odours, visual amenity, community health and safety, privacy, impacts on local services and property prices, economic impacts, physical and / or economic resettlement, use of ecosystem services such as freshwater, impacts on local culture and heritage sites, impacts on children, intersection with existing situations of conflict or community tensions, Indigenous Peoples' concerns, security issues and local content.

It is important to track the effectiveness of any company response to its impact on individuals and communities that may be particularly vulnerable or at risk of marginalization. Operational-level grievance mechanisms can also provide important feedback on the effectiveness of a company's approach to human rights issues from those directly affected.

Stakeholder groups are often diverse, featuring multiple voices, ranging from local residents and chambers of commerce to education institutions and Indigenous Peoples. In line with guidance for meaningful stakeholder engagement provided by the OECD, companies are expected to prioritize those stakeholders for whom the risk of adverse impacts is greatest, or the potential adverse impact is severe or could become irremediable. It is also important that companies consider specific vulnerabilities that could affect groups as a result of their activities. This includes Indigenous Peoples who are often likely to be relatively marginalized and vulnerable. Their status in society (whether economic, social or legal) may limit their ability to defend their rights and interests in relation to lands and other natural and cultural resources. In some countries they are afforded special rights or protection; in others they receive little or no protection, or laws guaranteeing their rights are not enforced.

Companies with operations or activities that may affect Indigenous Peoples, their lands, livelihoods and cultural heritage should engage with them constructively, to understand potential adverse impacts on their rights and to seek to address their concerns and expectations. Constructive and meaningful engagement with Indigenous Peoples can prevent and minimize risks to the community and the company and provide opportunities for positive long-term relationships.

LOCAL CONTENT

For the purposes of this guidance, we define local content as the local resources a project or business uses or develops along its value chain while invested in a host country. This may include employment of nationals, goods and services procured from companies resident in the host country, partnerships with local entities, development of enabling infrastructure, the improvement of local skills and capacity of local businesses, or the improvement of local technological capabilities.

Effective local content programmes can support long-term development. However, there are risks, such as displacing traditional economic activities such as farming and fishing, or over-dependence on a project's employment and supply contracts. A company's arrival can also disturb the local balance of power and affect social cohesion.

HUMAN RIGHTS MANAGEMENT

Key points to address

A. Any processes, positions or policies that demonstrate your commitment to respect all internationally recognized human rights through your company's activities and your supply chain, referencing any human rights frameworks and guidance that your company has made a commitment to, such as the UNGPs or VPs.

B. How your company embeds and implements human rights commitments within its day-to-day responsibilities, where responsibility for identifying, mitigating and managing human rights issues sits, as well as the type of issues your senior management and Board discuss, and are accountable for.

C. Your human rights due diligence approach in line with the UNGPs and relevant regulation. Be sure to demonstrate how that approach is reflected in corporate and project-level processes and functions, such as procurement, provision of security, and labour relations. The approach should:

i. Explain how you identify the company's most salient human rights risk areas in your own activities and business relationships based on severity, and how those risk areas are then managed. Include how you engage with affected stakeholders in this process.

ii. Explain how you manage human rights risk and your measures to address human rights impacts. Include highlights of any action you have taken, such as the use of impact assessment processes, or enhancements to procurement and supply chain management, or involvement in multi-stakeholder initiatives or awareness / training.

iii. Include how you track your performance on preventing and mitigating impacts, covering how you engage with affected stakeholders in the process.

iv. Explain how you report back on your performance to affected stakeholders.

D. Your grievance mechanisms. This can explain how your mechanisms meet the effectiveness criteria of the UNGPs (legitimate, accessible, predictable, equitable, transparent, rights-based, a source of continuous learning and based on engagement and dialogue) and the processes in place to provide affected stakeholders access to appropriate remedy. You can also include any criteria you use to establish new mechanisms and how you work with the community to define those mechanisms.

E. At a regional, country or asset level, how specific types of human rights issues may arise in particular operations, projects or partnerships, as well as how you engage employees, contractors and business partners in decisions and actions, including specific local challenges, opportunities and lessons learned.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

SOC-1
Human rights due diligence

WHY THIS MATTERS

It is important for companies to provide evidence of their respect for human rights by demonstrating that they have well-established processes for human rights due diligence, as applied to relevant activities and relationships. This indicator enables you to set out key elements of your approach, and to show how consideration of human rights issues is integrated within your systems, processes and functions.

SCOPE

You should describe key elements of your approach, including:

- relevant human rights-related policies, processes and guidance, including external commitments or initiatives such as commitments to international standards;

- how your approach to human rights due diligence and policy commitments is embedded into management systems / business processes and functions, and thereby implemented;

- procedures to identify, assess and address any actual or potential adverse human rights impacts on the workforce, local communities and other rightsholders throughout the value chain;

- efforts to integrate policies and commitments at the local level, along the supply chain and through other business relationships;

- processes and practices to promote meaningful engagement of rightsholders; and

- internal monitoring and auditing to track the implementation of standards, policies or procedures. This can include outcomes of assessments and potential challenges.

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C1	Describe the components of your company's human rights due diligence approach and how it is applied to company processes to assess, address, monitor and communicate actual or potential human rights impacts.
C2	Describe processes and practices to provide access to remedy mechanisms at the local level, supported by specific examples as appropriate.
C3	Describe how human rights considerations are factored into early phase decision making, including project siting and planning for new projects, with joint venture partners, and likewise for decommissioning or sale of operations.
C4	Outline the scope, content and tracking of human rights training programmes. You could include figures for people trained in a given year, the proportion trained against the population that may need training, and how you measure the effectiveness of training.
C5	Report qualitative measures for tracking the effectiveness of implementation and the outcomes of policies and procedures. For example, human rights considerations when evaluating investments.

ADDITIONAL

A1	Provide additional context on the relevance of human rights standards to your operations. This might include references to external country and / or human rights regulations or risk indices.
A2	Provide case studies to illustrate how potential human rights issues are assessed and addressed, with procedures to monitor concerns and grievances and progress them to closure.
A3	Report quantitative measures for tracking the effectiveness of implementation and the outcomes of policies and procedures. For example, the results of monitoring / auditing.

SOC-2
Suppliers and human rights

WHY THIS MATTERS

Since suppliers and contractors provide goods and services, the way in which they approach human rights practices can have a significant impact on your company and stakeholders. This indicator provides opportunity for you to describe your approach, processes and programmes to promote respect for human rights by suppliers and contractors.

SCOPE

You should describe key elements of your approach, including:

- how you identify the nature and location of the most salient human rights risk areas based on severity risks in your supply chains;

- relevant policies, processes and guidance that you provide to suppliers and contractors;

- the steps you take before entering into contracts, such as any review of policies and performance or due diligence investigations;

- a review of your own purchasing and local hiring practices to prevent contributing to poor human rights / labour standards in supply chains, covering risks such as undue pressure on pricing or strict deadlines; use of suppliers with known poor labour rights records;

- how you continue to monitor suppliers and contractors to make sure they meet human rights expectations and labour standards throughout the contract, for example, through engagement and audits;

- how you raise awareness of grievance mechanisms available to your supply chain workforce and determine their satisfaction with working conditions;

- training or capacity building to improve supplier / contractor performance to meet contract requirements;

- the potential risks and effects of the energy transition, for example through investment in transferrable skills or re-training initiatives; and

- your involvement in multi-stakeholder initiatives to address systemic supply chain risks, such as through community roundtables.

You might want to discuss specific efforts to engage suppliers in developing common goals, and behaviours that promote respect for human rights and positive labour practices (see SOC-4, 5, 6 and 7).

BASIS

Where quantitative data is included, you should determine an appropriate reporting boundary, including a consideration for the extent to which you include subcontractors and your wider supply chain (see Module 1 *Reporting process* for further guidance.)

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REPORTING ELEMENTS

CORE

C1 Describe your approach and processes for promoting respect for human rights by your suppliers.

C2 Describe how you screen and assess suppliers for social, environmental and human rights-related risks.

ADDITIONAL

A1 Describe efforts aimed at promoting human rights in your supply chain, including human rights due diligence processes and supplier-run grievance mechanisms.

A2 Report the percentage of significant contracts with relevant human rights related clauses.

A3 Report the number of audits conducted, issues found and corrective action taken.

A4 Provide case studies demonstrating your procedures to monitor suppliers' adherence to contractual agreements related to human rights – extending beyond the first level of suppliers where possible – including the actions you take when findings do not meet your company's expectations.

SOC-3
Human rights and security

WHY THIS MATTERS

Experience has shown that challenges can arise in maintaining the safety and security of operations within an operating framework that seeks to respect human rights and fundamental freedoms. This indicator enables you to set out how you manage and monitor your policies, programmes and processes relating to human rights and security.

SCOPE

When describing your approach to security and human rights practices, you should include a description of how principles for respecting human rights are incorporated into global and local level policies, procedures or guidelines. For example:

- how risk assessment processes (including mitigation plans) are integrated into management systems, and how findings are acted upon. This might include how security risks are identified, potential for conflict in particular locations, the human rights records of security providers (public and private), and risks associated with the transfer of equipment (lethal and non-lethal) to security providers;

- procedures to monitor, report, investigate and remediate alleged security-related incidents with human rights implications, including community engagement mechanisms and processes that seek to prevent non-retaliation when allegations are made against security forces;

- procedures on working with public or private security providers and how those relationships are managed. For example, screening and assessment processes, cost reimbursement, the use of company facilities, training provided on company policies or international standards, guidelines on the use of physical force and reporting procedures;

- efforts to raise awareness of security and human rights with internal and external stakeholders. For example, external outreach and education with industry groups, governments and state security forces, engagement with regulators and civil society organizations, and internal training for employees, contractors and subcontractors. This can include lessons learned; and

- whether the company adheres to international best practices or has made commitments to principles or good practices such as the VPs on Security and Human Rights, noting that companies may implement the VPs without being formal signatories.

While this indicator focuses on the potential affects of a company's security services on the human rights of local communities, indicator SHS-7 in Module 5 *Safety, health and security* addresses terrorist, cyber attacks and other hostile security risks that could threaten a company's operations and workforce.

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CORE

C1 Describe your relevant policies, programmes and processes relating to security and human rights.

C2 Describe how your security and human rights policies, programmes and processes are implemented at the country, regional or facility-specific level.

C3 Describe communication efforts to implement your commitments on security and human rights with host governments and authorities, contractors and subcontractors, in your supply chain and civil society.

ADDITIONAL

A1 Disclose (subject to confidentiality, safety, legal, political or local community concerns) any major incidents or challenges relating to security and human rights that have had a serious impact on human rights or the company's reputation, and lessons learned.

A2 Describe the scope, content, and tracking of human rights training programmes for security services.

A3 Report on specific objectives set during the reporting period, or on lessons and issues encountered at an operational level.

A4 Provide case studies to illustrate how you assess and address potential human rights issues related to security forces and how you monitor and address concerns and grievances, especially in high-risk or conflict areas.

LABOUR PRACTICES
Key points to address

A. How you implement labour practices, including policies that refer to or align with relevant national or international laws, standards or guidelines such as the ILO Conventions.

B. How you implement labour rights commitments in your company's day-to-day responsibilities, where responsibility for identifying, mitigating and managing labour rights issues sits, and the types of issues discussed by senior management and the Board, and what they are accountable for.

C. At the regional, country or asset level, how you help relevant stakeholders, such as employees, contractors, and business partners, to identify labour rights risks and the decisions and actions you take that are relevant to labour practices. For example, recruitment and working conditions for your employees, contractors and subcontractors, lessons learned and specific local challenges or opportunities.

D. The actions you take to address labour rights risks and to improve your company's approach to labour practices. This can include actions taken to prohibit child labour and protect young workers, eliminate worker discrimination, eliminate forced labour and human trafficking, uphold freedom of association, comply with minimum wage regulations and observe working time regulations.

E. Your processes for engaging direct, contracted and subcontracted workers, including the use of workforce grievance mechanisms so that those affected can raise questions or concerns that are then addressed and, where appropriate, resolved in a prompt, fair manner. You can explain how your grievance mechanisms meet the UNGPs effectiveness criteria (legitimate, accessible, equitable, predictable, transparent rights-based, a source of continuous learning and based on engagement and dialogue). Issues covered by an internal grievance mechanism or non-compliance system can include human rights, ethics, environmental, safety and health-related concerns, labour / employment issues, discrimination and whistle blowing.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

SOCIAL

SOC-4

Site-based labour practices and worker accommodation

WHY THIS MATTERS

Respecting the human rights of your site-based workforce is an important aspect of labour practices management, including recruitment, employment, working and living conditions. This indictor enables you to describe your policies, strategies and procedures to respect the human rights of your site-based workforce, including addressing the risks of modern slavery.

SCOPE

You should describe your strategies and processes for respecting the human rights of your site-based workforce, and how you assess their effectiveness. The workforce includes any individual hired to carry out activities on, or related to, an oil and gas project. This includes individuals hired directly by an oil and gas company and individuals hired through third parties such as contractors, subcontractors, labour agencies and suppliers. It includes individuals in both high and low-skilled positions. Given the risks around labour rights including modern slavery, you should include descriptions of your actions to manage labour practices generally as well as your actions to identify and address risks of modern slavery, considering factors such as:

- How you identify the nature and location of the most salient human rights risk to your site-based workforce

- How you seek to determine that the workforce:
  - have not paid recruitment fees;
  - have not been misled about the terms of their employment during the recruitment process (e.g. wages, hours, living conditions);
  - have received all documentation in a language / format they understand;
  - have unrestricted access to their personal documentation;
  - are not subject to unreasonable restriction on freedom of movement;
  - are not subject to physical or sexual harassment;
  - are above the minimum legal age and if there is anyone below 18 that they are not engaged in hazardous work;
  - have the right to join or form trade unions or other workforce organizations, and to bargain collectively;
  - have suitable accommodation and living conditions including access to food and safe drinking water and sanitation;
  - have not been subject to any discrimination regarding the factors above; and
  - know and understand their rights.

- Compliance with minimum wage regulations

- Compliance with workplace anti-discrimination laws

- How processes for working hours, overtime, on-time payment of wages and leave are maintained

- How the wider welfare of workers is considered in the provision of accommodation and recreation facilities, for example privacy, means of external communication and recreation areas

REPORTING ELEMENTS

CORE

C1	Describe your approach to the recruitment and employment of your site-based workforce, including how you communicate your expectations to your suppliers of contract labour.
C2	Describe your approach to monitoring and addressing on-site working conditions, including the quality of worker accommodation.
C3	Describe your approach to engaging with contractor management and the workforce so that their recruitment, employment, working and living conditions are aligned with your company's expectations and with relevant national or international laws, standards or guidelines.

ADDITIONAL

A1	Describe how you screen contractors for labour rights practices and how labour rights issues are included in significant tenders for labour.
A2	Discuss the frequency of your on-site assessments of human rights including labour rights, and provide examples of the types of issues identified, or case studies to illustrate how assessments are carried out.
A3	Describe your approach to providing training for employees and third parties on labour rights risks.
A4	Describe your approach to ensuring that the welfare and well-being of workers is accounted for in the design and provision of company and third-party accommodation, including how you undertake assessments, covering frequency and measures taken to address concerns and introduce improvements.
A5	Describe your approach to addressing the risks of modern slavery, including as appropriate, specific details related to your compliance with relevant legislation in countries where you operate.

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Workforce diversity and inclusion

WHY THIS MATTERS

Support for diversity and inclusion at all levels of the company is an important aspect of your description of the composition of your workforce. This indicator enables you to describe your policies, programmes and procedures and to demonstrate the effectiveness of these on issues such as non-discrimination, nationality, ethnicity, sexual orientation and disability.

SCOPE

You should describe the policies, programmes or procedures you have in place to support non-discrimination and to address workforce diversity and inclusion at a global level, illustrated by case studies or examples of implementation at national levels such as parental leave policies and anti-harassment measures.

REPORTING ELEMENTS

CORE

C1	Describe your policies, programmes and procedures to promote workforce diversity and inclusion, and non-discrimination.
C2	Provide workforce composition data for gender and / or other diversity categories.
C3	Discuss workforce composition, particularly with reference to your management positions.

ADDITIONAL

A1	Provide case studies to illustrate how you implement policies, procedures and programmes at a corporate and local level.
A2	Provide information on other inclusive practices, such as equal pay for equal work.
A3	Provide data on the diversity and inclusion issues that are raised through your grievance mechanisms or engagement surveys.
A4	Describe how career management reflects the diversity of your workforce, for example promotion rates for different groups, or the progression of national employees versus expatriates.

SOC-6
Workforce engagement

WHY THIS MATTERS

Active engagement with your workforce is a recognized aspect of business success and a valuable means to identify any workforce concerns. This indicator demonstrates how you engage with workers to determine their satisfaction with issues such as your company's employment practices, working conditions and any accommodation you provide.

SCOPE

For the purpose of this guidance, 'engagement' includes a range of approaches, including day-to-day interaction, satisfaction surveys, workforce representation systems and social media interaction.

When discussing the workforce, you should clarify the extent that employees, contractors and other subcontracted workforces are included.

You should describe key elements of your approach, including:

- your approach to worker engagement and dialogue, including any efforts to increase its effectiveness in bringing forward challenges and opportunities; and

- how you define and measure 'satisfaction' and how significant concerns, such as confidentiality and feedback, are considered.

REPORTING ELEMENTS

CORE

C1	Provide examples of how you engage with your workforce, including examples of approach, frequency, coverage, communication of results and action plans.
C2	Set out your approach to handling worker concerns and issues.

ADDITIONAL

A1	Provide quantitative data, with explanation, to illustrate the annual staff turnover of your direct workforce.
A2	Describe formal conversations with your workforce.
A3	Discuss significant issues, challenges and outcomes that arise from workforce surveys or other interactions.
A4	Provide case studies that illustrate your specific approaches to workforce engagement. For example, how you capture the views of workers, or how workers engage in dialogue with management at national or local levels, or how you engage with your local supply chains or specific groups inside your workforce.

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SOC-7

Workforce training and development

WHY THIS MATTERS

Initiatives on workforce training and development are an integral part of being a good quality employer. This indictor demonstrates how your company recruits and retains its people, supports diversity and inclusion, and encourages participation at all levels.

SCOPE

This indicator applies to activities that strengthen your company's human capital, through training and development, to enhance skills, efficiency, knowledge and mobility to meet job requirements and career goals and ambitions.

You should describe programmes and policies that support training and development.

This can also include any training that supports people at the end of their careers, or when downsizing or closing facilities.

You can provide evidence by quantifying the scale and extent of training programmes using measures such as:

- average hours of training per year per employee and by category of worker;

- average training investment per year; and

- percentage of workers receiving training in the reporting period.

REPORTING ELEMENTS

CORE

C1	Describe the key elements of your approach to training and development.
C2	Illustrate how you implement training and development programmes, e.g. hours of training, training investment, number of staff trained.

ADDITIONAL

A1	Provide case studies to demonstrate implementation and progress. These might include examples of opportunities for international work experience, support for continued professional education, mentoring initiatives and approaches to managing career endings.
A2	Discuss the results of your training and development programmes, such as positive changes in behaviours and attitudes.

SOC-8

Workforce non-retaliation and grievance mechanisms

WHY THIS MATTERS

It is important for members of your workforce to have access to grievance mechanisms, which they can use confidentially and without fear of retaliation. This indicator provides information on how you protect your workers' ability to raise workplace grievances and / or to identify non-compliance and ethical incidents without fear of reprisal.

SCOPE

Information provided under this indicator should cover:

- A description of your policies, systems and mechanisms that aim to prevent non-retaliation or discrimination and address grievances, including non-retaliation against whistleblowers. This can include a description of who is able to access the mechanism, i.e. whether it is open to employees only or your entire workforce.

- Information on the availability, accessibility and use of your workforce grievance systems, which might be illustrated by quantitative data or examples of issues raised.

REPORTING ELEMENTS

CORE

C1 Describe your policies, approach and / or mechanisms that aim to secure non-retaliation, non-discrimination and confidentiality when addressing grievances. This might extend to access to third-party independent grievance mechanisms.

ADDITIONAL

A1 Provide information, with supporting data if desired, on the management and resolution of workforce grievances. Quantitative data may include the approximate proportion of workers covered by the system, the number of issues raised and the extent to which workers are aware — and trust — the system.

A2 Provide quantitative data to illustrate use of grievance mechanisms within your company.

A3 Provide case studies to demonstrate how you build confidence in your mechanisms, including how you communicate and promote their use and reliability.

A4 Describe assurance of non-retaliation and grievance mechanisms for short-term or contract workers.

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COMMUNITY ENGAGEMENT

Key points to address

A. Your systematic approach to understanding and addressing any impact your company might have on the communities where you operate and your processes for local community engagement.

B. The range of the communities where you operate and address the distinct ways in which at risk or vulnerable groups, such as children and Indigenous Peoples, might be affected by your activities and relationships. You should aim to provide a balanced picture of the challenges and benefits.

C. References to international standards, guides or practices that your company has adopted such as the IFC Performance Standards. Material challenges and opportunities for the local community should be discussed. For example, this might cover conflict-affected areas, influx management, environmental impacts on people, cultural rights, privacy, health, education, protection of human rights defenders and resettlement practices.

D. Your mechanisms to address and, where appropriate, remedy community grievances. We encourage you to outline processes for systematically receiving, investigating and responding to community complaints and concerns at an operational level, and how any adverse social and environmental impacts will be addressed.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

SOC-9

Local community impacts and engagement

WHY THIS MATTERS

Active engagement with the community in the areas where you operate is an integral part of your social license to operate. This indicator enables you to describe your policies, strategies and procedures for how you engage with local communities, and to set out the efforts you make to prevent, mitigate or resolve adverse effects on local people.

SCOPE

For this indicator, the terms 'affected communities' and 'affected stakeholders' includes individuals, administrations, businesses and other representatives of civil society within a local community.

The term 'affected communities' is defined within the 2012 IFC *Policy and Performance Standards on Social and Environmental Sustainability* [5]. 'Local community' includes individuals or groups of people who live or work sufficiently nearby to be potentially impacted (positively or negatively) by the company's operations, including their environmental and cultural resources, and is not restricted to 'fence-line' neighbours of a facility but can include those living at a distance who are still likely to be affected by those operations.

You should set out:

• How you engage with affected communities, as well any local community impact assessment and mitigation work that you carry out. This can include descriptions of:

  › stakeholder engagement strategies and processes that target different social groups, such as women or minorities;

  › impact assessment processes and how you embed them into early phase project planning to inform strategy and location, design and implementation; or how you embed them in planning decommissioning, downsizing or the sale of operations;

  › the potential impact on communities of the transition to a low-carbon future, including risks and opportunities. This might cover the effects of downsizing existing activities, or scaling up alternative energy activities;

  › processes for periodic and proactive public disclosure of information on your activities and how you manage their impact;

  › the existence and effectiveness of your community grievance mechanisms;

  › monitoring and follow-up procedures, throughout a project or asset's lifecycle. This can include measures you take to support the resilience of the local economy when operations have ceased, such as re-training members of the workforce; and

  › the positive benefits of your operations and engagement. For example, new infrastructure and jobs, or improved livelihoods and wellbeing.

In relation to major projects or assets, you can include case studies that illustrate how you put your approaches into practice. They may demonstrate the results of any stakeholder engagement plans or management of local community impacts, together with examples of issues and lessons learned from monitoring and evaluation.

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Case studies can also describe how you have responded to stakeholder issues and the extent of local community support for your subsequent decisions.

REPORTING ELEMENTS

CORE

C1 Discuss your approach to engagement with relevant stakeholders, including communities, civil society (including human rights defenders), other companies and / or governments.

C2 Describe your policies, programmes or procedures for:
- assessing and addressing local community impacts, including archeological, historic and cultural sites, and how these considerations are embedded into early phase planning and site / route selection;
- engaging with affected stakeholders and responding to their grievances and concerns;
- monitoring the effectiveness of the steps you take to prevent, mitigate and resolve adverse impacts; and
- public disclosure of information on your activities and management of impacts.

C3 Provide case studies that illustrate the effectiveness and results of your engagement with stakeholders and / or how you have managed any impact on local communities, their environmental and cultural resources.

ADDITIONAL

A1 Report quantitative measures, such as:
- the number and / or percentage of sites with grievance mechanisms or similar conflict resolution procedures; and
- data on the types of concerns raised via engagement or grievance mechanisms, supported by qualitative information on how you have addressed concerns, including elevation to corporate management, where appropriate.

A2 Describe your efforts to assess and understand community perceptions of your activities and their impact. For example, self-appraisal, use of reliable and unbiased third-party research or surveys developed in collaboration with the local community.

SOC-10

Engagement with Indigenous Peoples

WHY THIS MATTERS

Indigenous Peoples may be a specific stakeholder group who are particularly vulnerable and who may be affected by your activities. This indicator enables you to describe the policies, programmes and procedures you use to engage Indigenous Peoples and address their concerns and expectations.

SCOPE

You should explain how you use the term 'Indigenous Peoples' in your reporting. While there is no universally accepted definition, the following characteristics are partly and / or fully attributable to Indigenous Peoples:

• self-identification as indigenous;

• occupation and use of a specific territory prior to the arrival of other groups;

• collective attachment to specific lands and cultural heritage;

• a common experience of marginalization and discrimination;

• a strong link to territories and surrounding natural resources;

• distinct cultural, economic, social and / or political / belief systems;

• a distinct language; and

• a determination to preserve, develop and transmit to future generations their ancestral territories and identity as peoples, in accordance with their own cultural patterns, social institutions and legal systems.

In describing your approach to engaging with Indigenous Peoples, you can include processes and mechanisms that relate to:

• identification, avoidance, minimization and mitigation of potential impacts on indigenous communities, their livelihoods, cultural heritage and the local environment;

• information disclosure, consultation, informed participation and mutually acceptable solutions with consent – referring to the concept and practices of 'free, prior and informed consent' (FPIC);

• skills training provided to those participating in engagement and consultation;

• access to culturally appropriate grievance mechanisms; and

• identification and joint implementation of development benefits, including access to jobs and economic opportunities.

If appropriate, you might also refer to Indigenous Peoples when reporting on your human rights due diligence processes (see SOC-1, SOC-9, SOC-14 and SOC-15).

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CORE

C1
Describe your policies, programmes, procedures and practices used to:

- identify and address your impacts on Indigenous Peoples;
- train your staff on engagement and consultation with Indigenous Peoples;
- engage with Indigenous Peoples to seek a formal agreement or FPIC where needed and to address their grievances, concerns and expectations;
- collaborate on opportunities that create mutual benefits; and
- increase indigenous participation through employment and business opportunities.

ADDITIONAL

A1
Provide case studies and examples that demonstrate participation and involvement of Indigenous Peoples. For example, your approach to consultation, challenges and results or agreements that you have entered into with Indigenous Peoples.

A2
Describe the types of issues raised by Indigenous Peoples in specific countries and the actions you have taken to address them, such as in planning and decision making, as well as identifying and mitigating potential adverse impacts from your operations and supply chains.

SOC-11

Land acquisition and involuntary resettlement

WHY THIS MATTERS

In exceptional circumstances, oil and gas activities may involve involuntary resettlement of people and / or their economic activities. This indicator enables you to describe your policies, programmes and procedures related to land acquisition and involuntary resettlement and to provide examples of your efforts to avoid or limit involuntary resettlement, any restrictions on surface and subsurface land and soil use and, where applicable, how you provide fair and transparent compensation.

SCOPE

You should describe your approach to avoiding, mitigating and / or providing compensation for involuntary resettlement and land acquisition as well as addressing any associated potential or actual human rights impacts.

When describing your policies, programmes or procedures you can include information on several related processes, such as:

- project design to minimize or avoid resettlement;

- community consultation and engagement;

- resettlement planning and implementation, including efforts to address the needs of at risk or vulnerable groups;

- compensation, livelihood restoration, community development and benefits for affected people;

- grievance mechanisms and their effectiveness; and

- monitoring and evaluation processes.

You may also list and quantify cases of involuntary resettlement during the reporting period. This can include the number of households resettled in each case and an explanation of how livelihoods were affected and restored in the process.

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REPORTING ELEMENTS

CORE

C1 Describe your policies, programmes and procedures for involuntary resettlement, including engagement processes and practices with affected communities, including any international standards you have used.

C2 Describe your policies, programmes and procedures for land acquisition, including relationship with compulsory purchase / eminent domain when in the public interest.

ADDITIONAL

A1 List, quantify and / or describe cases of involuntary resettlement required by your activities (where governments permit disclosure).

A2 Provide qualitative case studies that illustrate how you implemented the process described under C1 / 2. For example:

- any challenges or grievances you encountered and how you resolved them;
- how you calculated fair compensation and / or provided livelihood restoration;
- why involuntary resettlement was unavoidable;
- the provision for any land returned at abandonment / closure;
- if the acquisition affected Indigenous Peoples, explain your approach to implementing FPIC principles; and
- how you addressed any related actual or potential adverse human rights impacts such as on the right to education, health or an adequate standard of living.

SOC-12

Community grievance mechanisms

WHY THIS MATTERS

Community, or operational level, grievance mechanisms provide a channel for members of the community or other stakeholders to raise concerns or complaints without fear of harm, about how your activities affect them and whether they have been addressed in a prompt, fair and consistent manner. They provide a mechanism for your company to identify negative impacts, enable you to address them, and respond early and directly to concerns or complaints. This indicator sets out your processes and actions to respond to the concerns of external stakeholders, including processes in place for confidentiality and non-retaliation.

SCOPE

A community grievance mechanism allows individuals and groups to request information and raise perceived or actual concerns about operational impacts such as noise, damage to property or the environment, the impacts of influx (i.e. workers, jobseekers and entrepreneurs), security practices, sexual harassment, safety, and other human rights related issues.

You can demonstrate the availability and use of your operational-level grievance mechanisms by providing qualitative or quantitative data against the effectiveness criteria of the UNGPs (legitimacy, accessibility, equity, predictability, transparency, rights-based, a source of continuous learning and based on engagement and dialogue).

You can demonstrate your willingness to engage with external stakeholders by providing transparent information on how to access your grievance mechanism, the number of cases raised, their nature and the actions you took to respond to them. For example, you can disclose how many grievances were related to human rights and other social issues.

BASIS

The qualitative aspects of this indicator are reportable at a global and local level. In addition, case studies can show how you designed and communicated your systems, outlining the steps you have taken to build community confidence in them. These might include quantitative information on how you have addressed grievances, such as the number of cases resolved, or any compensation provided. For quantitative examples, we recommend you determine, based on geographical spread and the nature of your relationships, the most appropriate balance between local reporting and consolidated reporting at a group level.

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CORE

C1	Describe your community and stakeholder grievance mechanisms.
C2	Describe your policies, approach and / or mechanisms for receiving, responding to and resolving external grievances, covering your efforts to manage confidentiality and avoid retaliation.

ADDITIONAL

A1	Provide information and / or quantitative data about how you manage and resolve individual or community grievances.
A2	Use case studies to describe how you support stakeholder confidence and trust in your mechanisms, including promotion of use.
A3	Provide information about the most common topics of community grievances, either in specific locations or globally.

SOC-13
Social investment

WHY THIS MATTERS

The decisions that companies make about social investment are often the result of consultation and engagement to help them understand and meet community needs and aspirations. This indicator provides opportunity to describe your strategies, programmes and procedures relating to social investment and its impact on the communities in which you operate.

SCOPE

Social investment generally includes company-financed investments and donations to community programmes. It includes contributions that create shared value and inspire community development through the provision of expertise, access to facilities, training, and other non-financial resources.

You should describe your overarching social investment strategy, which might include descriptions of corporate objectives, links to local / regional / national development plans and decision-making criteria. You can include details on whether initiatives are community-owned and driven, third-party or company-facilitated.

When describing the effectiveness of your social investments, you can include descriptions of:

- processes and methods for assessing and evaluating social investment effectiveness;

- outcomes, effects and lessons learned;

- how your social investments have triggered additional community funding, other long-term partnerships and / or other institutional capacity-development activities; and

- how your social investments link to the UN SDGs [11], or other international standards which guide your approach to investment.

BASIS

The indicator has qualitative and quantitative aspects, is reportable at a global level, and may be supported by local case studies. Quantitative data should be consolidated within your reporting boundary.

You should define what your company considers to be social investment for reporting purposes. When reporting financial data, the basis for reporting total social investment spend should be explained. For example, you can specify whether you include elements such as employee giving, marketing projects and leveraged funding.

A company's social investment is separate from any compensatory investment it might make for the environmental and social impact of its activities, such as those described in indicator SOC-11. Furthermore, social investment cannot offset the need to remedy adverse effects a company might have caused or contributed to in relation to human rights. It is also important that social investment itself is carried out with respect for human rights.

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CORE

C1 Describe your social investment strategies, programmes and procedures.

C2 Report your company's total social investment expenditure.

ADDITIONAL

A1 Provide an assessment of the quality and effectiveness of your social investment strategy, including results and impacts.

A2 Set out social investment expenditure broken down by region or country.

A3 Provide social investment expenditure broken down by voluntary and contractually obligated spend.

A4 Report the percentage of annual pre-tax profits towards contributions to host communities.

A5 Provide case studies to illustrate how you have implemented your social investment strategy and any lessons learned. For example:

- how significant parts of the local community perceive they are benefiting from your investment, including the extent to which livelihoods and economic opportunities are developing;

- whether your social investments are fostering improved community relations or creating tensions; and

- how your contributions are creating shared value and community development through the provision of expertise, access to facilities, training or other non-financial resources.
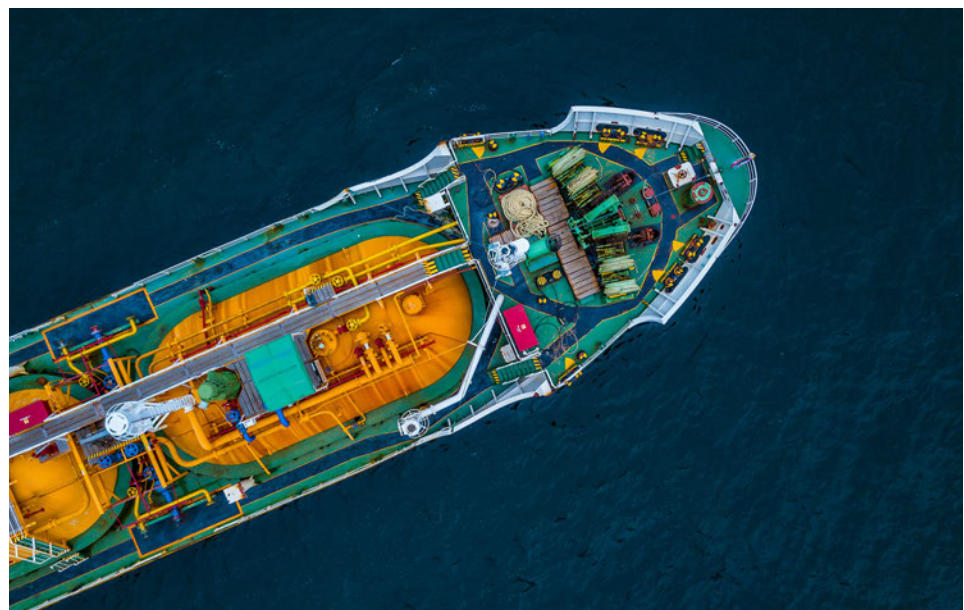
LOCAL CONTENT
Key points to address

A. Your approach to supporting local content, taking account of the fact that legislation or specific agreements with many host countries include local content requirements. Outlining your strategy gives you the opportunity to provide your definition of local content, as well as the challenges and benefits it presents: for example, lower operating costs and closer alignment with government development goals. Discussion of benefits can include approaches that measure multiplier effects that seek to capture indirect and induced economic impacts.

B. Why these issues are important, and any business benefits your strategy offers. This can help you create a more locally focused narrative about locations where your programmes help to develop local supply chain capacity. For example, you might describe who you are trying to serve and how, as well as the purpose of your efforts, such as hiring and developing local staff, reducing local unemployment, or accelerating the transfer of skills and technologies.

C. An overview of the scale, scope and geographical spread of your local supply chain in terms of activities, goods and services provided by local suppliers and contractors, and the scale of spending on local procurement as a total and as a proportion of total procurement spend. This can include information on the number and location of your local suppliers and contractors and the balance between local and global suppliers, and your selection criteria.

D. How you work with local suppliers to help them avoid or minimize any adverse social and environmental impacts caused by their activities and promote benefits and good practice.

E. Your policies and processes for monitoring, assessing and managing risks throughout your local supply chain, as well as encouraging your local suppliers to follow the human rights principles your company has adopted. Policies could cover supplier screening and assessment, procurement and contracting, monitoring, audit and termination processes, adoption and mutual recognition of management systems, and methods for engagement and grievance identification and resolution.

To support your narrative, informed by these key points, you should report on any or all of the following indicators, based on your material issues.

SOCIAL

SOC-14

Local procurement and supplier development

WHY THIS MATTERS

Given how much industry activity is dependent on suppliers and contractors, the way in which a company sources locally and supports suppliers is critical to the development of regional supply chains, as well as supporting a stable local economy and sharing global work practices with local companies. The indicator focuses on the actions you take to increase the participation of local suppliers and contractors in your supply chain and create wider economic benefits.

SCOPE

Your account of local procurement activity may include:

- descriptions of your corporate policy, procurement strategy or other measures related to the management of your supply chain;

- your local content strategy and management;

- an explanation of what constitutes 'local'. While precise definitions may be unique to each host community, you could reference factors such as locally owned businesses, or businesses with a certain percentage of local employees; and

- your general approach to systematic implementation, including stakeholder engagement, analysis, workforce and supplier development, tendering and contractual mechanisms, as well as how you monitor progress.

You may report expenditure on locally sourced goods and services within selected host countries as a percentage of total national procurement budgets.

You might also discuss how your local capacity assessments and engagement with stakeholders has helped you anticipate the range of goods and services you need to deliver a project. You might refer to your own or independent assessments on local ability to supply goods and services.

You should describe how you help local suppliers and contractors to competitively meet the needs of your company and businesses more generally.

This can include efforts to help local suppliers build their capabilities to meet company standards, for example, through health and safety skills training and compliance with respect for human rights including labour standards. You may describe activities or investments that particularly assist supplier development or initiatives. For example, initiatives that aim to help small and medium-sized enterprises, or organizations owned by women or other marginalized groups.

SOCIAL

REPORTING ELEMENTS

CORE

C1 Describe your strategies, programmes and procedures that are designed to improve the ability of local suppliers and contractors to support operations and projects, such as actions that help local suppliers meet company and international standards.

ADDITIONAL

A1 Provide your expenditure on locally sourced goods and services.

A2 Use case studies to illustrate how your local procurement policies, programmes and procedures are implemented locally, including results and lessons learned.

A3 List countries / regions where you have carried out local capacity assessments.

A4 Quantify the number (or percentage) of your organizational entities that are covered by formal agreements or legislation within host countries regarding local content.

A5 Describe how your procurement process helps or encourages your first level of suppliers and contractors to source locally.

A6 Describe further activities designed to assist supplier development, such as engagement in collaborative groups (e.g. with other companies or chambers of commerce) to promote local enterprise and economic development.

A7 Demonstrate how your activities can lead to indirect job creation and economic development, for example providing case studies / examples of local business development that are a result of the economic activity and opportunities created by a project, even if not directly meeting current company needs.

A8 Provide case studies that discuss the socio-economic effects of your local procurement activities on the host community / country. This may be linked to your reporting of indicator SOC-9.

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WHY THIS MATTERS

Oil and gas companies face multiple external expectations on increasing local employment opportunities, as this represents one aspect of a company's local economic impact. Some of this information may be required by host country governments, who may set 'nationalization' targets outlining the proportion of national employees required at different levels of management. By describing your strategies, programmes and procedures to provide employment opportunities to residents or nationals of host countries and communities, this indicator demonstrates the reach and effectiveness of your local employment strategy in relevant locations.

SCOPE

You should describe the nature and effectiveness of your processes and strategy for providing employment opportunities to residents or nationals of host countries. This should be broken down by country, region, communities, business units, where relevant. It should also include descriptions of:

- processes related to staff hiring, appraisal, training, development and progression;

- what the term 'local' means to your company, noting that this can be unique to host communities and sometimes lead to tensions and a sense of unfairness if mishandled;

- specific education programmes to enhance current and future local employability;

- measures to address any adverse impacts your local hiring practices may have, or any impacts on workers' human rights. For example, how you manage local worker expectations and influx of jobseekers, avoid exacerbating pre-existing community tensions and manage the risk of employing workers who are taken away from other responsibilities to their families; and

- annual statistical data on local hiring.

REPORTING ELEMENTS

CORE

C1 Describe your strategies, programmes and procedures aimed at providing employment opportunities to residents or nationals of host countries.

ADDITIONAL

A1 Provide overall number and / or percentage of expatriate (international) employees in your total workforce, in target countries or regions.

A2 Provide information on how your local employment strategies promote diversity and inclusion at the local level, including management roles (see SOC-5).

A3 Include information and / or quantitative data on local employees who are trained in other (non-local) assets of the company.

A4 Describe your in-country programmes designed to create jobs at a local level, supported by quantitative data.

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References, links and other sources

References with links

1   UN, 1948: *Universal Declaration of Human Rights - adopted by the United Nations General Assembly in December 1948* https://www.un.org/en/universal-declaration-human-rights/index.html

2   *International Bill of Rights.* Includes the *Universal Declaration on Human Rights* (UDHR), the *International Covenant on Civil and Political Rights* (ICCPR), the *International Covenant on Economic, Social and Cultural Rights* (ICESCR) and the two *Optional Protocols to the ICCPR.* In addition to the covenants in the *International Bill of Human Rights,* the United Nations has adopted more than twenty principal treaties further elaborating human rights. These include conventions to prevent and prohibit specific abuses such as torture and genocide and to protect specific vulnerable populations such as Indigenous Peoples (*Convention on Indigenous and Tribal Peoples in Independent Countries, 1989*), refugees (*Convention Relating to the Status of Refugees, 1951*), women (*Convention on the Elimination of All Forms of Discrimination Against Women, 1979*), and children (*Convention on the Rights of the Child, 1989*). Other conventions cover racial discrimination, prevention of genocide, political rights of women, prohibition of slavery and torture. www.humanrights.com

3   Ruggie, J., 2011: *Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework* https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf

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7   The UN Guiding Principles Reporting Framework: https://www.ungpreporting.org/

8   VPSHR 2000: *Voluntary Principles on Security and Human Rights* https://www.voluntaryprinciples.org/

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Appendix

Glossary

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Note: the references in square parentheses refer to a Module or Indicator in the Guidance where further definitional information is provided.

Alternative energy: The energy derived from non-fossil fuel sources [CCE-3].

Asset integrity: A systematic approach to ensuring the safe containment of hazardous materials or energy by applying good design, construction and operating principles [SHS-6]. In this Guidance, this term is used synonymously with Process safety.

Barrel of oil equivalent (BOE): For liquids, one BOE equals one barrel of oil or condensate. For gases, one BOE equals approximately 5,800 standard cubic feet (SCF) of gas.

Baseline: Dated information or data that establishes a reference point against which performance trends can be consistently assessed on a regular, usually annual, basis.

Benchmarking: The process of assessing relative performance against a group of peers.

Biodiversity: Biological diversity, or biodiversity, is very broadly the variety of life on earth at the genetic, species, and ecosystem levels of biological organization [ENV-3].

Biofuel: A fuel produced from organic matter produced by plants [CCE-3].

Biomass: The total dry organic matter or stored energy content of living organisms [CCE-3].

Bribery: The payment of money or the provision of another benefit to someone in business or government to influence that person's judgment or conduct in order to gain commercial advantage [GOV-3].

Business activities: The types of oil and gas industry operations or other commercial affairs of a company, such as Exploration, Production, Pipelines, Shipping, Refining, Alternative Energy, Marketing or Petrochemicals.

Business partner: Organization with which the reporting company has some form of commercial alliance or contract.

Carbon dioxide (CO_2): A naturally occurring GHG that is also emitted during combustion when burning fossil fuels and biomass [CCE-4].

Child labour: The use of children as workers below the minimum age at which they can enter into different kinds of work.

Climate change: Statistical variation in the distribution of weather which, at a global level, has been associated with increased levels of atmospheric CO_2 produced largely by the increasing combustion of fossil fuels from the 20th century onwards [CCE-1,2,3 and 4].

CO_2 equivalent: A convenient scale for comparing and combining emissions of different GHG species. The CO_2-equivalent emission is obtained by multiplying the emission of a GHG species by its Global Warming Potential (GWP). For a mix of GHG species it is obtained by summing the CO_2-equivalent emissions of each gas (see CCE-4 in Module 3 *Climate change and energy* for a list of species and guidance on selection of GWPs).

Cogeneration / combined heat and power (CHP): A facility producing electricity and steam or heat simultaneously using the same fuel supply to achieve energy efficiency and lower emissions [CCE-6].

Consolidation: The process of gathering and aggregating information (usually quantitative data) from a company's business activities within its reporting boundary to generate indicators of overall company performance [*Detailed guidance on developing a reporting boundary* in Module 1 *Reporting process*].

Communities: A group of people who share a common sense of identity and interact with one another on a sustained basis [SOC-9].

Containment: See Primary containment and Secondary containment.

Continuous improvement: A cyclic process applied by management for planning, implementing, measuring and reviewing the company's activities in order to achieve better performance.

Contractor: In the context of the Workforce, a contractor refers to a person not employed directly by the reporting company who performs services under contract for the company, especially at one of its worksites.

Corruption: Any dishonest or illegal practice that results in loss of business integrity [GOV-3]. (*See also* Bribery.)

Cultural heritage: Protection of archaeological and historic resources such as ancient sites and buildings, together with respect for local customs, language, lifestyles, religion and history [SOC-10].

Cuttings: In drilling, pieces of drilled rocks brought to the surface by the returning drilling mud stream [ENV-6, ENV-7]

Direct energy: The amount of Primary energy used by a facility or its equipment to generate power or heat [CCE-6].

Direct GHG emissions: GHG emitted from sources at company facilities [CCE-4].

Discharges: In this Guidance, refers to releases of liquids (products, by-products or waste streams) into water or land [ENV-2, ENV-6].

Discrimination: A prejudicial outlook, action or treatment towards a person or a group of people. Discrimination may be based on race, colour, gender, religion, political opinion, nationality, social origin, social status, indigenous status, disability, age [SOC-5, SOC-8, SOC-10].

Downstream: Operations involving the refining, processing, distribution, and marketing of products derived from oil and gas, including service stations.

Drilling mud: The fluids used in drilling to control pressure and serve as a lubricant [ENV-6, ENV-7].

Ecosystem: A dynamic complex of communities of living organisms and their non-living environment interacting as a functional unit [ENV-4].

Ecosystem services: The benefits (direct and indirect) that people obtain from ecosystems [ENV-3, ENV-4].

Emissions: The release of gases, vapours, fumes, mist, and particulate matter into the atmosphere [CCE-4, CCE-7, ENV-5].

Employee: A person legally contracted and paid directly by a company to undertake work associated with its Business activities.

Energy efficiency: The ratio of measured output to energy input which describes efforts to use energy in a responsible manner such that maximum benefit is achieved for the resource consumed [CCE-6].

Energy intensity: Energy use divided by the appropriate normalization factor for a business activity, e.g. production volume, refinery throughput [CCE-6].

Energy use: The total Primary energy used by a facility calculated as the sum of Direct energy and Imported energy less any Exported energy [CCE-6].

Environment: An external setting comprised of its physical, chemical, biological and social components. In this Guidance, the term 'environment' refers especially to the natural environment, which broadly includes all non-anthropogenic living and non-living entities, whether solid, liquid or gas, occurring naturally on earth.

Environmental impact: The outcome of actions or events on the natural environment; while impacts may be beneficial, in this Guidance, the term refers to adverse, undesirable outcomes.

Environmental management system (EMS): A set of processes and procedures applied by managers to assess and implement actions or programmes to mitigate environmental impacts from operations.

Equity share: The percentage of ownership or economic interest in an operation [CCE-4, *Detailed guidance on developing a reporting boundary* in Module 1 *Reporting process*].

Event: An unplanned or uncontrolled outcome of a business operation or activity that has, or could have, contributed to an injury, illness, or physical damage or environmental damage [SHS-3, SHS-6].

Exploration: The activities of a company to find naturally occurring fossil fuels. (see also Upstream.)

Exported energy: The Primary energy content of a fuel or other source required to produce power (in the form of electricity, heat or steam) that is exported from the facility [CCE-6].

Fatality: An occurrence of death resulting from an Incident [SHS-3].

Fatal accident rate: The aggregate number of Employee or Contractor fatalities that have occurred within the company's Workforce during a stated period of time, reported as a rate (frequency) per 100 million hours worked during the same time period [SHS-3].

Fatal incident rate: The aggregate number of Incidents resulting in Employee or Contractor fatalities that have occurred during a stated period of time, reported as a rate (frequency) per 100 million hours worked during the same time period [SHS-3].

First-tier supplier: An organization that supplies goods or services directly to the company, i.e. without the use of an intermediate organization [SOC-15].

Flared gas: Total mass (or volume) of hydrocarbon directed to operational flare systems, wherein the hydrocarbons are consumed through combustion [CCE-7].

Flaring: The burning of gases in a thermal destruction device; includes flaring of associated gas from oil production [CCE-7].

Freedom of association: The right of Employees to form and join groups for the promotion and defence of their occupational interests [SOC-1].

Fresh water: Naturally occurring above-ground and underground non-brackish water. Typically used as drinking water, potable water or in agriculture [ENV-1].

Fresh water returned: The Fresh water discharged from a facility (directly or via a third party) into a freshwater body or aquifer [ENV-1].

Fresh water withdrawn: The volume of Fresh water removed from all sources, including surface water, groundwater, harvested rainwater and municipal water supply [ENV-1].

Fresh water net consumption: The difference between Fresh water withdrawn and Fresh water returned [ENV-1].

Fugitive emissions: The mass of uncontrolled releases of gas from pressurized process equipment, such as valves, flanges, pump and compressor seals, and open-ended lines, as well as tanks where hydrocarbons are exposed to the atmosphere [CCE-4, ENV-5].

GHG emissions from exported energy: The amount of Direct GHG emissions related to production of power (in the form of electricity, heat or steam) that is supplied to a third party [CCE-4].

GHG intensity: GHG emissions divided by an appropriate output factor for a business activity such as oil and gas production or refinery throughput [CCE-4].

Global warming: An overall increase in world temperatures which may be caused by additional heat being trapped by GHGs.

Global warming potential (GWP): A factor which estimates the contribution to Global warming of a given mass of a GHG species, relative to the same mass of CO_2 [CCE-4].

Greenhouse gases (GHGs): Gases in the atmosphere that absorb and emit radiation within the thermal infrared range and may consequently contribute to Global warming. For the purpose of these Guidelines, GHGs are the six gases (or families of gases) listed in the Kyoto Protocol [CCE-4].

Hazardous waste: Waste that is defined as hazardous, toxic, dangerous, listed, priority, special or some other similar term as defined by an appropriate country, regulatory agency or authority [ENV-7].

Health impact assessment (HIA): A process to assess potential effects of a project on the health of a population [SHS-2].

Health risk assessment (HRA): A process that aims to identify health hazards, evaluate risks to health, and determine appropriate control and recovery measures [SHS-2].

Human rights: Rights inherent to all human beings, regardless of race, gender, nationality, ethnicity, language, religion, or any other status. Human rights include the right to life and liberty, freedom from slavery and torture, freedom of opinion and expression, the right to work, and the right to education. Everyone is entitled to these rights, without discrimination [SOC-1, SOC-2, SOC-3, SOC-4].

Human rights defender: A person who, individually or with others, acts to promote or protect human rights [SOC-9].

Impact: An environmental, health, security, safety, or economic consequence resulting from a company's activities. An impact may be positive (i.e. beneficial) or negative (i.e. detrimental) to the environment or society.

Imported energy: The amount of Primary energy to produce power which has been purchased and used by the company, in the form of electricity, heat or steam [CCE-6].

Incident: An unplanned or uncontrolled Event or chain of Events that has resulted in Recordable injury, illness, or physical or environmental damage [SHS-3].

Indicator: Information or data which provides evidence of a company's performance in addressing sustainability issues which are material for reporting.

Indigenous communities, peoples and nations: Social groups, with unique characteristics and identities, that historically existed before the development of the dominant societal group in a country or territory [SOC-10].

Indirect GHG emissions for imported energy: GHG emissions that occur at the point of generating power that is supplied by a third party in the form of electricity, heat or steam for use in the reporting company's facilities [CCE-4].

Issues: Identified sustainability aspects, benefits or impacts of a company's activities.

Local: The use of this term may differ in a report depending on the issue being described or indicator used, and additional context is usually required for clarity. 'Local' can be used to narrowly reference neighbouring communities or the natural environment adjacent to company activities, or to provide wider reference to national or regional geographies.

Local content: The local resources a project or business uses or develops along its value chain while invested in a host country. This may include employment of nationals, goods and services procured from companies resident in the host country, partnerships with local entities, development of enabling infrastructure, the improvement of local skills and capacity of local businesses, or the improvement of local technological capabilities [SOC-14,SOC-15].

Loss of primary containment (LOPC): An unplanned or uncontrolled release of any material from Primary containment, including non-toxic and non-flammable materials (e.g. steam, hot condensate, nitrogen, compressed CO_2 or compressed air) [SHS-6].

Lost time illness: An Occupational illness that resulted in an Employee or Contractor fatality or Lost workday [SHS-3].

Lost time illness rate: The aggregate number of Employee or Contractor Lost time illnesses that have occurred within the company's Workforce during a stated period of time, reported as a rate (frequency) per million hours worked during the same time period [SHS-3].

Lost time injury: An Occupational injury that resulted in an Employee or Contractor fatality or Lost workday [SHS-3].

Lost time injury rate: The aggregate number of Employee or Contractor Lost time injuries that have occurred within the company's Workforce during a stated period of time, reported as a rate (frequency) per million hours worked during the same time period [SHS-3].

Lost workday: A severity classification for an Occupational injury or an Occupational illness incident that resulted in a person being unfit for work on any day after the occurrence of the Incident, irrespective of whether work was scheduled for that day [SHS-3].

Marketing: The facilities and process steps to supply products from refining to customers, including distribution terminals, transportation and retail.

Materiality: A concept in reporting and a process to determine the Issues relevant to the company and its stakeholders for inclusion in its Sustainability reporting, including the relative importance and prominence of each issue.

Methane (CH$_4$): A hydrocarbon compound that is the primary component of natural gas and designated a GHG [CCE-5].

Narrative: Textual content about material issues that takes into account the Key points to address, and which is supported by relevant indicators and reporting elements.

Near miss: An unplanned on uncontrolled Event or chain of Events that has not resulted in recordable injury, illness, or physical damage or environmental damage but had the potential to do so in other circumstances [SHS-3].

Nitrogen oxides (NOx): A general term for nitrogen oxide gases. These are produced by combustion and contribute to the formation of smog and acid rain [ENV-5].

Non-financial reporting: A term synonymous with Sustainability reporting. The term 'non-financial' is used by some companies to distinguish these reports from more traditional company financial reports.

Non-governmental organization (NGO): A non-profit group organized outside institutionalized political structures to realize particular social objectives or serve particular constituencies.

Non-hazardous waste: Waste, other than Hazardous waste, resulting from company operations, including process and oil field wastes disposed of, on site or off site, as well as office, commercial or packaging related wastes [ENV-7].

Normalization: The ratio of a quantitative indicator output (e.g. emissions) to an aggregated measure of another output (e.g. oil and gas production or refinery throughput) [Module 1 *Reporting process*].

Occupational illness: An Employee or Contractor health condition or disorder requiring medical treatment due to a workplace Incident, typically involving multiple exposures to hazardous substances or to physical agents. Examples include noise-induced hearing loss, respiratory disease, and contact dermatitis [SHS-3].

Occupational injury: Harm of an Employee or Contractor resulting from a single instantaneous workplace incident that results in medical treatment (beyond simple first aid), work restrictions, days away from work (lost time) or a Fatality [SHS-3].

Operating area: An area where business activities take place with potential to interact with the adjacent environment [ENV-4].

Operation: A generic term used to denote any kind of business activity involving product-related processes, such as production, manufacturing and transport. Note: the term oil and gas operations used in the Guidance is intended to be broad and inclusive of other types of product, such as chemicals.

Particulate matter: A complex mixture of small particles or droplets such as salts, organic chemicals, metals and soil particles [ENV-5].

Petrochemicals: Chemical products derived from oil and gas.

Pipelines: Construction and use of facilities to transport liquid or gaseous hydrocarbons over long distances in above-ground, below-ground or underwater pipes.

Primary containment: The vessel, pipe, barrel, equipment or other barrier that is designed to keep a material within it [ENV-6, ENV-7, SHS-6].

Primary energy: The energy content of a hydrocarbon fuel or other energy source used to produce power, usually in the form of electricity, heat or steam [CCE-6].

Process safety: A systematic approach to ensuring the safe containment of hazardous materials or energy by applying good design, construction and operating principles [SHS-6]. In this Guidance, this term is used synonymously with Asset integrity.

Process safety event: A Recordable Loss of primary containment. Process safety event rate: The number of Process safety events per 1,000,000 (1 million) work hours (production and drilling work hours only).

Produced water: Water that is brought to the surface during operations which extract hydrocarbons from oil and gas reservoirs [ENV-6].

Product: Any material of commercial value which is extracted, processed, refined, manufactured or transported by an oil and gas company.

Product life cycle: The various stages of a Product's existence – from procuring the raw materials, to manufacture, distribution and use of the product, to how it is disposed of or recycled at the end of its usefulness [SHS-5, ENV-7].

Product stewardship: The process of addressing and communicating health, safety and environmental risks associated with oil and gas products [SHS-5].

Production: the activities of a company to extract naturally occurring fossil fuel resources.

Recordable: A type of Event, Incident, injury, illness, release or other outcome which has been determined to meet or exceed definitions, criteria or thresholds for inclusion and classification in reported data.

Recovered hydrocarbons: The amount of spilled hydrocarbons removed from the environment through short-term spill response activities. It does not include longer-term remediation or oil which evaporates or burns [ENV-6].

Refining: Operating plant and processes to convert extracted hydrocarbons (crude oil, condensates and natural gas) into fuel, lubricants and other products for marketing to customers.

Renewable energy: Primary energy sources that are constantly replenished by natural processes including solar, hydro, geothermal and wind power, as well as biomass [CCE-2, CCE-3].

Reporting: Disclosing relevant information and data to internal and external stakeholders such as management, Employees, governments, regulators, shareholders, the general public, local communities or specific interest groups.

Reporting boundary: A defined list of organizational units based on a company's entities, assets and Business activities from which information is Consolidated for reporting an Indicator [*Detailed guidance on developing a reporting boundary* in Module 1 *Reporting process*].

Resettlement: Voluntary or involuntary relocation of individuals or communities due to land use requirements associated with industry operations [SOC-11].

Reused, recycled or recovered waste: Waste from an industrial or commercial process that is not disposed of, but beneficially used again in the same or another process [ENV-7].

Rights-holders: Individuals or social groups that have particular entitlements in relation to specific duty-bearers. In general terms, all human beings are rights-holders under the Universal Declaration of Human Rights. In particular contexts, there are often specific social groups whose human rights are not fully realized, respected or protected. For example, these groups often include women / girls, ethnic minorities, Indigenous Peoples, migrants and youth. A human rights-based approach does not only recognize that the entitlements of rights-holders need to be respected, protected and fulfilled, it also considers rights-holders as active agents in the realization of human rights and development – both directly and through organizations representing their interests.

Risk: The combination of likelihood (frequency) and severity (consequence) of potential adverse impacts, from actions or events, on the environment or people.

Safety Data Sheet (SDS): Information provided on hazards, risks, handling, storage and emergency measures for users of a chemical product [SHS-5].

Salient human rights: The human rights at risk of the most severe negative impact through the company's activities and business relationships. The most salient human rights for a business enterprise will typically vary according to the sector and operating context. The UN Guiding Principles clearly state that an enterprise should not focus exclusively on the most salient human rights issues and ignore others that might arise. However, the most salient rights will logically be the ones on which it concentrates its primary efforts.

Secondary containment: An impermeable physical barrier specifically designed to prevent leakage of materials into the environment that have breached primary containment [ENV-6].

Shipping: Transport of oil or gas by ocean, sea or river using specifically designed vessels [SHS-4].

Significance: A judgement determined by the company on whether a specific aspect, impact, event, action or other type of outcome of a company's activities or performance is sufficiently important in terms of management and / or reporting. The judgement may be informed by a number of factors such as the extent of actual or potential consequences, local stakeholder concerns, regulatory or legal exposure, or risk / impact assessment processes.

Note: in this Guidance, 'significant' applies to individual, usually localized, outcomes whereas 'material' applies to an entire issue which can be informed by multiple outcomes across the entire company and reflects the issue's relevance to the company's management and stakeholders overall. A significant localized impact, such as a major safety incident, can result in a material issue for the company as a whole (or affect the materiality of an existing issue).

Social investment: Social investment programmes are the voluntary and / or regulatory contributions companies make to the communities and broader societies where they operate, with the objective of mutually benefiting external stakeholders and the company [SOC-13].

Social license to operate: The ongoing acceptance of a company or industry's standard business practices and operating procedures by its employees, stakeholders, and the general public [SOC-9].

Spill to the environment: Any unintended release of liquids or solids associated with current operation, from Primary containment or Secondary containment, into the environment [ENV-6].

Stakeholders: People that affect, or are affected by, company activities or operations (e.g. customers, shareholders, management, Employees, Suppliers, local communities, advocacy groups and government).

Subcontractors: Secondary Contractors who are contracted by a supplier (and not by the reporting company directly) to perform some or all the supplier's contractual obligations to the reporting company.

Sulphur dioxide (SO$_2$): An emission that results primarily from the combustion of sulphur in hydrocarbons and contributes to acid rain and other air quality problems [ENV-5].

Supplier: A third-party organization paid by the company under contract to provide goods or services.

Supply chain: Entire network of entities, directly or indirectly interlinked and / or interdependent in serving the same consumer or customer with goods or services.

Sustainability reporting: Defined, for this Guidance, as reporting on the range of environmental, health and safety, social, and economic issues and impacts that relate to oil and gas company activities. Companies may use a variety of other terms for this type of reporting, such as non-financial reporting, corporate responsibility, corporate citizenship, or environmental, social and governance.

Total recordable illness rate: The aggregate number of Employee or Contractor Occupational illnesses that are recordable and have occurred within the company's Workforce during a stated period of time, reported as a rate or frequency per million hours worked during the same time period [SHS-3].

Total recordable injury rate: The aggregate number of Employee or Contractor Occupational injuries that are recordable and have occurred within the company's workforce during a stated period of time, reported as a rate or frequency per million hours worked during the same time period [HS3].

Upstream: Activities or operations involving the exploration, development, and production of oil and gas.

Venting: The controlled release of gases in the atmosphere. The gases might be natural gas or other hydrocarbon vapours, water vapour and other gases, such as carbon dioxide, separated in the processing of oil or natural gas [CCE-7].

Volatile organic compounds (VOCs): Organic compounds which vaporize in the atmosphere and may participate in photochemical reactions. Where stipulated by local regulation, ethane and methane can be excluded [ENV-5].

Waste: Material (solid or liquid) intended to be disposed of, reused, recycled or recovered either on site or off site, that is the result of company operations [ENV-7].

Waste disposal: Final placement or destruction, on site or off site, of Waste under proper process and authority with no intention to retrieve [ENV-7].

Workforce: All people undertaking work activities managed by a company, which can include Employees, Contractors and others as specified in the company's report.

Measurement units and conversion factors

Reporting companies are encouraged to use generally accepted international units and to provide standard conversion factors.

These conversion factors should only be used when the data units differ from those required but the *ad hoc* conversion factor is not known (for example, when data related to the quantity of oil produced are expressed in barrels of oil equivalent (BOE) instead of metric tonnes but the mean density of the oil produced is unknown).

The assumptions underlying the conversion factors are:

*   density of the oil 0.84 t m^{-3}
*   density of the condensate 0.75 t m^{-3}
*   density of the associated gas 1 kg m^{-3}
*   density of the non-associated gas 0.80 kg m^{-3}
*   density of chemicals, solvents, and all other products spilled 1.0 t m^{-3}

Conversion factors for hydrocarbon production:

*   1 bbl of oil $\cong 0.159 \text{ m}^3$ $\cong 0.134$ t (metric tonne)
*   1 bbl of condensate $\cong 0.119$ t
* 1000 m^3 of associated gas $\cong 1.00$ t
* 1000 m^3 of non-associated gas $\cong 0.80$ t
* 1000 ft^3 of associated gas $\cong 28.3 \text{ m}^3$ $\cong 0.0283$ t
* 1000 ft^3 of non-associated gas $\cong 28.3 \text{ m}^3$ $\cong 0.0226$ t
*   1000 bbl per day $\cong 48910$ t per year

Conversion factors for atmospheric emissions:

* CH_4:   Density: $0.714 \times 10^{-3} \text{ t m}^{-3}$
* SO_2:   Mean density: $2.89 \times 10^{-3} \text{ t m}^{-3}$ $1 \text{ t } SO_3 \cong 1.20 \text{ t } SO_2$
* NO_x: Mean density $2.02 \times 10^{-3} \text{ t m}^{-3}$ $1 \text{ t NO} \cong 0.94 \text{ t } NO_2$
* CO_2:   Density: $1.96 \times 10^{-3} \text{ t m}^{-3}$

Conversion factors for produced water discharges:

*   1 bbl $\cong 0.159 \text{ m}^3$
*   1 bbl per day $\cong 58.0 \text{ m}^3$ per annum

Conversion factors for oil spills:

- 1 bbl of oil $\cong$ 0.159 m^3 $\cong$ 0.159 m^3 or $\cong$ 0.134 t
- 1 bbl of condensate $\cong$ 0.119 t
- 1 bbl of chemicals & others $\cong$ 0.159 t

Conversion factors for energy consumption:

- 1 calorie = 4.1868 joule
- GCV = Gross calorific value (= Higher heating value, HHV)
- NCV = Net calorific value (= Lower heating value, LHV)

Diesel qualities (density and heating value) may differ from one part of the world to another. In lack of correct (local) data, the following values may be used:

- 1 t of diesel oil $\cong$ 42.8 GJ (GigaJoules)
- 1 m^3 of diesel oil $\cong$ 36.0 GJ, assuming a density of 0.84 t/m^3

Field specific data for net calorific values (NCV) should be used if available. If such data are unavailable, the following values can be used:

- 1 Sm^3 of natural gas (gas fields) $\cong$ 38 MJ (MegaJoules)
- 1 Sm^3 of associated gas (oil fields) $\cong$ 42 MJ
- 1 Sm^3 of gas, unspecified $\cong$ 40 MJ

Ratios between GCV and NCV depend on hydrocarbon composition. Field specific data should therefore be used if available: If such data are unavailable, the following values can be used:

- Gas: GCV/NCV $\cong$ 1.1
- Oil: GCV/NCV $\cong$ 1.05
- Unspecified HC (oil and gas):   GCV/NCV $\cong$ 1.075

The following default conversion factor can be used for purchased electricity, and assumes that the efficiency of electricity produced is 38% of the heat input:

- 1 kWh = 0.0096 GJ

IPIECA

IPIECA is the global oil and gas industry association for environmental and social issues. It develops, shares and promotes good practices and knowledge to help the industry improve its environmental and social performance, and is the industry's principal channel of communication with the United Nations.

Through its member-led working groups and executive leadership, IPIECA brings together the collective expertise of oil and gas companies and associations. Its unique position within the industry enables its members to respond effectively to key environmental and social issues.

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The American Petroleum Institute

The American Petroleum Institute is the primary trade association in the United States representing the oil and natural gas industry, and the only one representing all segments of the industry.

Representing one of the most technologically advanced industries in the world, API's membership includes more than 400 corporations involved in all aspects of the oil and gas industry, including exploration and production, refining and marketing, marine and pipeline transportation and service and supply companies to the oil and natural gas industry. API is headquartered in Washington, D.C. and has offices in 27 state capitals and provides its members with representation on state issues in 33 states. API provides a forum for all segments of the oil and natural gas industry to pursue public policy objectives and advance the interests of the industry. API undertakes in-depth scientific, technical and economic research to assist in the development of its positions, and develops standards and quality certification programmes used throughout the world. As a major research institute, API supports these public policy positions with scientific, technical and economic research.

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IOGP

IOGP represents the upstream oil and gas industry before international organizations including the International Maritime Organization, the United Nations Environment Programme (UNEP) Regional Seas Conventions and other groups under the UN umbrella. At the regional level, IOGP is the industry representative to the European Commission and Parliament and the OSPAR Commission for the North East Atlantic. Equally important is IOGP's role in promulgating best practices, particularly in the areas of health, safety, the environment and social responsibility.

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