

Oil and Gas Industry Guidance on Voluntary Sustainability Reporting



Using Environmental, Health & Safety, Social
and Economic Performance Indicators

Initiative
endorsed by:



April 2005



The International Petroleum Industry Environmental Conservation Association (IPIECA) is comprised of oil and gas companies and associations from around the world. Founded in 1974 following the establishment of the United Nations Environment Programme (UNEP), IPIECA provides one of the industry's principal channels of communication with the United Nations.

IPIECA is the single global association representing both the upstream and downstream oil and gas industry on key global environmental and social issues including oil spill preparedness and response; global climate change; health; fuel quality; biodiversity; and social responsibility.

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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 programs 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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The International Association of Oil & Gas Producers (OGP) 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, OGP is the industry representative to the European Commission and Parliament and the OSPAR Commission for the North East Atlantic. Equally important is OGP's role in promulgating best practices, particularly in the areas of health, safety, the environment and social responsibility.

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A process for obtaining additional oil and gas industry associations endorsements is underway.

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Foreword

The International Petroleum Industry Environmental Conservation Association (IPIECA) and American Petroleum Institute (API) are pleased to introduce the *Oil and Gas Industry Guidance on Voluntary Sustainability Reporting*. It is intended as a voluntary reference designed to assist oil and gas companies that are interested in reporting on their environmental, health and safety, social, and economic performance.

IPIECA and API are working together to create a common framework for sustainability or non-financial reporting that will enable interested audiences and company stakeholders to better understand performance of oil and gas companies that operate anywhere in the world on a national, regional or international level. The development of this guidance document is part of a larger initiative aimed at helping companies and industry associations improve upon the quality, scope, completeness and consistency of reporting on issues commonly included under terms such as sustainable development, social responsibility or corporate citizenship (*).

The interest in improved “sustainability” or “non-financial” indicator reporting is highlighted by the emergence of the Global Reporting Initiative (GRI) *Sustainability Reporting Guidelines*. The oil and gas industry acknowledges the value of the GRI *Guidelines* as an important generic voluntary reporting framework. IPIECA and API also recognized an opportunity to respond to member company requests for guidance on sustainability or non-financial reporting practices that address the diversity of operations and unique activities of the oil and gas industry.

The indicators and information referenced in this document reflects the work of an IPIECA and API Joint Corporate Reporting Task Force and does not establish an industry standard. They are only presented as suggestions for companies interested in voluntarily reporting sustainability or non-financial performance information. It is not intended to replace traditional financial reporting or other information disclosure specifically material to investors.

(* In this document, the terms “sustainability” and “non—financial performance indicators” are defined as the range of environmental, health and safety, social, and economic issues and impacts that relate to oil and gas company operations and products. Companies may choose to use a variety of terms to refer to this concept, such as corporate responsibility, corporate citizenship, or contributions to sustainable development.

Acknowledgements

The information contained in this document was developed jointly under the auspices of the International Petroleum Industry Environmental Conservation Association (IPIECA) and The American Petroleum Institute (API), and represents the work product of the IPIECA/API Joint Corporate Reporting Task Force that was composed of representatives from oil and gas companies that are members of IPIECA and API.

During the planning and preparation of this work, Bill Boyle of BP chaired the Task Force, with Anita Riddle of ExxonMobil as co-chair during the planning phase. Walt Retzsch of API provided active direction, coordination and review, and served as the Task Force Secretariat. Chris Morris and Sophie Depraz, supported by Tessa Macnair, provided direction and input for IPIECA. John Stephens provided overall consultant support for the project, along with Julia Adamson on social and economic issues.

The following individuals led the 5 subgroups of the Task Force:

- Corporate Reporting Steering Group: Bill Boyle (BP)
- Environmental Performance: Steve Merritt (ChevronTexaco) and Alena Jonas (ConocoPhillips)
- Health & Safety Performance: Myron Harrison (ExxonMobil)
- Social Responsibility: Valerie Crissey Lee (ChevronTexaco)
- Economic Performance: Dominique Chauvin (Total)

Key reference sources used in the development of this document include:

- IPIECA/API, *Compendium of Sustainability Reporting Practices and Trends for the Oil and Gas Industry* (2002). www.oilandgasreporting.com
- IPIECA/OGP/API, *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions* (2003). www.ipieca.org/climate/ghg.html
- GRI, *Sustainability Reporting Guidelines* (Global Reporting Initiative, 2002). www.globalreporting.org
- Stratos Inc., *Stepping Forward – Corporate Sustainability Reporting in Canada* (Stratos Inc., 2001).
- API, *Environmental, Health and Safety Benchmarking Survey – Definitions, Instructions and Questionnaire*, (2003). www.api.org/ehsbench

Additional references are included in Section 9.

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Section 1 – Purpose and Key Considerations

1.1 Purpose

The purpose of the *Oil and Gas Industry Guidance on Voluntary “Sustainability” Reporting* is to assist current and future oil and gas companies in improving the quality and consistency of voluntary reporting on their environmental, health and safety, social and economic performance. This guidance document is designed to be a voluntary reference tool to help companies interested in developing or enhancing their reporting on these issues.

Given the evolving nature of sustainability or non-financial performance reporting, the intent of this document is to help reporting companies:

- Understand how to prepare and what to consider including in a report
- Improve data consistency and quality
- Foster improved processes for efficient data collection
- Create new opportunities for internal and external benchmarking
- Demonstrate industry commitment for consistent and transparent performance reporting
- Encourage and facilitate stakeholder feedback, engagement and dialogue processes
- Use this information to improve business processes, strategies and actions

1.2 Context

Through the products it provides, the oil and gas industry helps fuel economic development and social progress. Petroleum products are essential building blocks for development, from asphalt for roads, fuels for transport, electricity generation, heating and cooking, and the raw material for plastics.

The oil and gas industry recognizes the important role it plays around the globe and the need to be responsive to interested audiences and company stakeholders. Citizens globally have a natural desire to understand our industry and to participate in open dialogue concerning risks and benefits inherent to our industry. One result of this is growing interest for non-financial performance reports to complement the financial reports intended for investors.

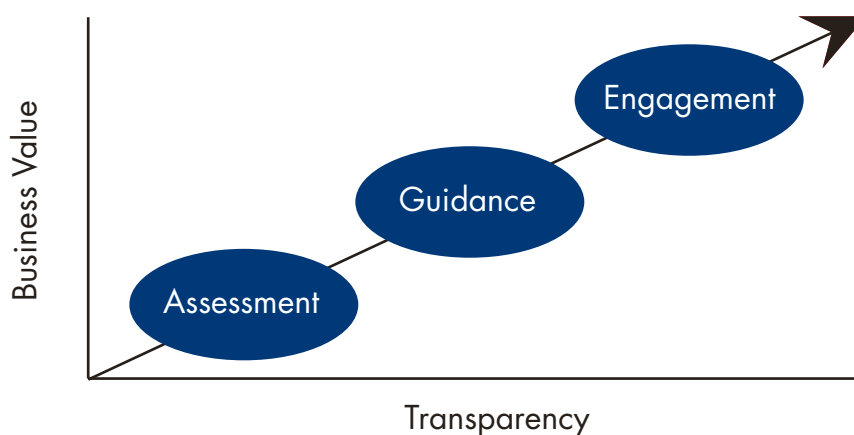
The oil and gas industry also recognizes that reporting on sustainability or non-financial indicators to those who are affected by or can benefit from oil and gas operations and products is a valuable tool in managing and measuring progress. Reporting is also one important approach, among others, for developing constructive stakeholder dialogue and thereby fostering a better understanding of stakeholders’ concerns.

Indicators featured in this document are germane to the oil and gas industry and are most useful when they can be used internally by companies themselves, as well as externally by interested parties. Often, these types of indicators are used as proxies for the “triple bottom line” or the three legs (i.e., environment, social, economic) that form the basis of the concept known as sustainable development or sustainability (see figure on following page from the *Compendium*).



1.3 Review of Current Reporting Practices

The development of this guidance document is the second phase of a larger IPIECA/API initiative aimed at helping companies improve reporting on environment, health and safety, social, and economic issues.



In February 2003, API and IPIECA completed the assessment phase by publishing the *Compendium of Sustainability Reporting Practices and Trends for the Oil and Gas Industry*, which provides an overview of the current state of sustainability or non-financial indicator reporting among many oil and gas companies. The *Compendium* establishes a baseline that documents what, why and how companies are reporting sustainability performance. The report is available on a dedicated website (www.oilandgasreporting.com), where participating companies can update the information to maintain an “evergreen” document of current reporting practices.

As concluded in the *Compendium*, “The greatest challenges faced by the industry regarding sustainability performance reporting are determining how to measure, define and select appropriate indicators. Member companies would like industry associations to provide support mostly in the area of establishing and maintaining consistent metric definitions and measurement methods, but not in verification of performance results.”

The guidance document seeks to address these challenges. In so doing, the oil and gas industry will continue its journey toward becoming more effective in engaging key stakeholders in dialogue and seeking feedback on how to further improve industry performance and credibility.

1.4 Business Drivers for Improved Reporting

The reporting of sustainability or non-financial indicators is part of an evolving process that has its roots in corporate environmental reporting that began about two decades ago. Over time, environmental reporting has gradually expanded to include health and safety issues. More recently, many companies in the oil and gas industry have extended their reporting still further to include social and broader economic issues.

Sustainability or non-financial indicator reporting has become an increasingly important means for communicating company performance and progress. According to a 2001 publication – *Stepping Forward: Corporate Sustainability Reporting in Canada* – by Stratos Inc., such reporting can:

- **Enhance business value** – by building investor confidence and demonstrating that the company is managing risks and positioning itself to address emerging opportunities.
- **Improve internal operations** – by deepening the level of understanding of how the company is performing among employees, and internally using that information to improve company operations and decision-making processes.
- **Strengthen relationships** – by demonstrating to local communities and regulators that a company is operating in an environmentally and socially responsible manner that will benefit the community in the short and long term.
- **Be an important accountability mechanism** – by establishing commitments and reporting on the challenges and progress being made.

1.5 Considerations When Using this Guidance

Use of indicators and supporting information contained in this document is voluntary, with the goal of providing assistance to oil and gas companies that desire to improve the quality and consistency of sustainability or non-financial indicator reporting. It is designed to cover the entire value chain, from upstream operations through downstream activities, including petrochemicals. This guidance represents a first step taken by the oil and gas industry to identify and define performance indicators that most closely reflect the operational performance parameters that are believed to be of interest to most audiences and stakeholders. This guidance was developed for the use of any oil and gas company, whatever their country of origin, and whether they work nationally, regionally or internationally.

By providing a consistent set of indicators, this document facilitates publication of reports that lead to a more informed dialogue between companies, their stakeholders and audiences. At the same time, given the diversity of industry members' operations and stakeholders' interests, information reported will necessarily vary to some degree across companies. Similarly, depending on their operations, companies may choose to report on some or all aspects of sustainability or non-financial indicators, whereas others may choose not to publish such reports.

Throughout this document, several terms are used to describe company reports that include environmental, health and safety, social, and economic performance reporting. The terminology used to identify such company reports is constantly evolving over time; it varies among companies, stakeholders and audiences using the reports; and at times, it also reflects regional interpretations. As a result, in this guidance the terms "sustainability or sustainable development reporting", "non-financial indicator reporting", "corporate responsibility", "corporate social responsibility" or "social responsibility reporting", and "citizenship reporting" can be used interchangeably as generic terms to describe voluntary disclosure on performance in these areas. This list is not intended to exclude other similar terminology that companies may choose to use to identify their reports.

Legal Note:

This voluntary guidance document 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 terms and definitions used in this document are not necessarily the same as terms and definitions used in various statutes, rules, codes or other authoritative 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 existing 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.

Section 2 – Principles and General Guidance

2.1 General Reporting Principles

Reporting principles are broad concepts that form the basis upon which sustainability or non-financial reporting can develop and improve over time. The voluntary reporting principles outlined below are based on a general set of principles that were developed for the oil and gas industry in voluntarily reporting greenhouse gas emissions (see the 2003 IPIECA/OGP/API publication: *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions*). Reporting companies are encouraged to offer some discussion of how their reporting principles are applied and integrated into their reporting.

Relevance – It is important that reported information is considered by report users – both internal and external to the company – to be meaningful and valuable to the user for information purposes.

Transparency – Information should be reported in a clear, understandable, factual and coherent manner, and facilitate independent review. Transparency relates to the degree to which information on the processes, procedures, assumptions and limitations in report preparation are disclosed.

Consistency – The consistent application of information gathering processes and boundary definitions is essential to the development of credible reports. Consistency in what is reported and how it is reported enables meaningful comparisons of a company's performance over time and facilitates shared understanding, especially internally within companies, as well as comparisons with peer companies.

Completeness – Information that is relevant to internal and external users should be included in a manner that is consistent with the stated purpose, scope and boundaries of the report. Reported information should be complete with respect to appropriate operational boundaries and scope of information.

Accuracy – Information should be sufficiently accurate and precise to enable intended users to understand the relevance of information with a reasonable level of confidence. Accuracy refers to the levels of certainty and uncertainty of reported information such that users can assess its usefulness, reliability and limitations.

2.2 General Reporting Practices

The reporting principles described above provide a foundation for developing sustainability or non-financial indicator reports. More specifics about general reporting practices, which many oil and gas companies commonly use in their reports, are noted below.

Scope: It is important that reporting companies be clear and explicit in describing what issues and aspects of their operation are covered in their sustainability or non-financial reports (i.e., what operations are or are not included in the report, and why). For example, companies may choose to restrict scope to health, safety and environment issues initially, and gradually develop their reporting on social and economic issues.

Indicators: To the extent feasible, information should be reported in terms that can be quantitatively measured. Reporting companies are encouraged to present data using generally accepted international units and provide standard conversion factors to enable conversions to other

commonly used measurement units. However, not all indicators can be quantified, in which case the use of qualitative indicators (e.g., case studies, process or management system descriptions) is also encouraged.

Information Quality: Reporting companies are encouraged to describe how quantitative data or qualitative information were produced and managed relative to measurement protocols and methodologies for collection and compilation of information. To the extent feasible, the quality of quantitative data should be discussed in terms of its source, how it was assessed and the degree of certainty.

Timeliness: Reporting companies are encouraged to publish reports on a regular schedule.

Dissemination Methods: Reporting companies are encouraged to disseminate information in a consistent manner through a variety of media, such as printed reports, as well as corporate websites.

Baselines: Many companies establish baselines to maintain data consistency and track performance over time. This facilitates internal performance monitoring and decision-making, and helps demonstrate progress toward stated goals from a designated starting point or base year. Selection of a reference year should take into account the quality of historical data and frequency and/or significance of non-recurring events.

Performance Trends: Wherever possible, reporting companies should present performance indicators in a manner that enables users to understand trends. Comparisons with industry averages and trends, where available, can also provide a useful context. Performance information often includes quantitative or qualitative objectives or targets (whether voluntary or prescribed), a description of plans for achieving progress, and explanations for variances in performance. Setting objectives or targets is one mechanism that can be useful in reporting progress and can demonstrate accountability.

Impacts: Reporting organizations may want to describe their operations in terms of environmental, social and economic impacts. Wherever possible, quantitative information should include a discussion of its meaning and positive or negative impacts, thus providing a context for report users to assess data and information. Qualitative information can include case study illustrations of benefits, lessons learned and challenges. A good understanding of a company's impacts can be beneficial in improving ongoing decision-making processes, and in identifying initiatives to meet objectives and goals.

2.3 General Reporting Content

Although reporting companies use a wide variety of formats and presentation structures, sustainability or non-financial reports typically consist of an executive summary, company profile, reporting boundaries, company policies, major programme initiatives, and performance indicators. Some companies include topics such as report verification, the integration of management systems into operations, operational security, fines and penalties, and major media events.

When determining the data and information content to be disclosed, reporting companies need to consider the stakeholders who are the intended readers of the report (i.e., the report audiences). Key audience groups for these reports commonly include employees, investors, local communities and opinion leaders. Additional audience groups may include governmental and non-governmental organizations, regulators, academic and media research, schools and colleges, customers and suppliers, and the general public.

The table below lists examples of sections and topics that many oil and gas companies commonly include in sustainability or non-financial reports.

2.4 Performance Indicator Framework

Core and Additional Performance Indicators

The performance indicators contained in this guidance document are intended for oil and gas companies working anywhere in the world. They are organized under two categories – core and additional – to differentiate between indicators that are commonly adopted across companies in the oil and gas industry versus indicators that may not have general applicability to all oil and gas industry companies and/or may not be sufficiently well-defined for common adoption. Although the terms “Core” and “Additional” are used in the 2002 GRI *Sustainability Reporting Guideline*, the definitions used below are specific to this guidance document and the oil and gas industry.

Core indicators are typically:

- Considered relevant to almost all oil and gas industry companies
- Inherent to activities in the oil and gas industry (e.g., upstream and downstream)
- Of common interest to a wide range of local and global stakeholders
- Generally related to aspects or issues of national or global significance
- Sufficiently mature in terms of consistent usage and reproducibility by those in the oil and gas industry

On this basis, the core indicators have been defined to enable generally consistent reporting or aggregation on a global basis. There can be value and benefit in using core indicators to promote consistent performance reporting among companies, encourage best practice sharing and enable industry associations and organizations to generate reasonable overviews of sector performance.

Additional indicators can be of equal or even greater importance to individual companies than core indicators in specific contexts of location, activity or stakeholder group.

Additional indicators are typically:

- Assessed as relevant by the reporting company and its stakeholders
- Associated with only a subset of the industry
- Reflective of local regulations or legislation
- Generally related to issues of local or regional significance
- Evolving and under development

Additional indicators may often represent a leading practice in sustainability or non-financial reporting. Furthermore, some qualitative additional indicators may pertain to issues for which there are currently no generally accepted definitions or performance measurement practices.

Additional indicators are typically locally defined and/or relate to local or regional issues. Since indicator definitions may not provide comparable or meaningful descriptors of overall company performance, reporters should exercise caution when interpreting additional indicators on a global basis by either consolidating information or aggregating data. Therefore, reporting at the local (operating unit or country) level is becoming more prevalent for oil and gas industry companies, especially to describe performance in locations where a particular issue has high significance or sensitivity.

Presentation of only consolidated qualitative information or aggregated quantitative data with these indicators may not be as meaningful or useful unless local context, disaggregated data or other explanations are

provided by the reporting company. A company may not report all indicators addressed in this document if it has assessed that the indicator or issue is not relevant across all of its activities or because of insufficient information systems, quality, availability or resources.

Qualitative vs. Quantitative Information

Core and additional indicators can be defined either quantitatively or qualitatively. Quantitative indicators are reported as a number with a dimensional unit or some form of a numerical index. Certain indicators, however, do not readily lend themselves to quantification. Many social issues, in particular, are primarily reported in qualitative terms as there is not yet common understanding of appropriate quantitative measures. When qualitative indicators are appropriate, reporting companies are encouraged to consolidate information and report their performance in terms of underlying policies, commitments, programme initiatives, stakeholder partnerships, industry alliances and case study examples that describe results, benefits and lessons learned from various initiatives.

Over time, qualitative indicators may evolve into more quantitative measures. Companies may start out by describing performance related to operational practices and by using anecdotal examples and local case studies. In time, these anecdotal descriptions may converge into a more objective approach for reporting performance within an organizational segment or operating region of a company. Finally, these practices may emerge as a quantitative index for measuring performance or assessing impacts.

Data Aggregation

Companies report performance data at varying levels of aggregation ranging from individual facilities to national/regional locations and to global coverage for the entire corporation. Aggregate reporting at the corporate level is most commonly observed for reporting occupational injuries, environmental emissions and incident data as part of both regulated and voluntary public reporting. This guidance makes no specific recommendations about which of these levels of aggregation companies should report. Reporting companies are encouraged to determine the level of aggregation that is appropriate and provides a meaningful representation of the data being presented.

Normalization Factors

There are two principal aspects of performance indicators that are of interest to internal and external users of sustainability or non-financial indicator performance data: the absolute quantity of the indicator and the normalized quantity relative to some other measured input or output.

Reporting companies often present raw performance data in terms of absolute quantities that can be expressed in a physical unit of measurement related to weight, volume, energy or financial value. In general, absolute data can be expressed in units of measurement that are readily convertible. Absolute quantities may provide information about the magnitude or size of an output, input, value, or result.

Normalized quantities are relative figures representing ratios between two absolute quantities of the same or different kind. Ratios allow comparisons among operations of different size and facilitate comparisons of similar products or processes. They also help relate the performance and achievements of one company, business unit, or organization to those of another. Ratio indicators can provide information on the efficiency of an activity, on the relative intensity of an output (e.g., energy intensity) or on the relative quality of a value or achievement.

Often, companies measure and report performance based on both absolute and normalized quantities to provide a more complete and balanced representation of sustainability or non-financial performance. Additional information on the use of normalization factors is provided in Section 7 of this document.

Typical Report Sections	Examples of Topics
Executive Performance Summary and CEO Statement	Report overview and organization’s vision and strategy regarding such matters as: the benefits provided by its products/services, potential impacts of products and operations and a discussion of sustainable development
Company/Corporation/Organization Profile and Boundaries	Major products and services Operational structure, divisions, subsidiaries, joint ventures Countries of operation Size of reporting organization (employees, quantities of products, net sales) Key stakeholders Governance structure Significant changes in organization size, structure, ownership since last report Basis for reporting joint ventures, subsidiaries, partnerships, etc. Restatement of any key information stated in previous report
Principles, Policies, Mission, Value Statement, Codes of Conduct	Environmental, Health and Safety (EHS) Social (e.g., employment, community engagement) human rights (e.g., labor, equal opportunity, security, suppliers/contractors) Economic (e.g., anti—corruption, contracting) Industry association participation
Management Systems	Type or scope (ISO 14001 or other) Objectives and targets Implementation and certification status Assessments Contractor/Supplier (EHS) performance/management systems
Performance	Major performance improvement programmes Internal communication and training Performance indicators Internal and external auditing

2.5 Establishing Boundaries

For many oil and gas companies, describing the boundaries of reported information or indicators is an important consideration because they often cut across an array of complex operational and organizational relationships, as well as direct and indirect impacts (see Value Chain in Section 2.8). In the oil and gas industry, two or more parties are often involved in an asset, such as in a joint venture, and work together under a variety of legal forms. In some but not all situations, performance indicators can be aggregated and normalized across a range of dimensions that consider ownership, management accountability, geographic and national locations, industrial sectors, company divisions, business units, facilities and source types.

Organizational Boundaries

Organizational boundaries are used to define a company for the purpose of reporting and generally should contain all of the legally owned, or partly owned, assets of the company. This boundary may already be defined for financial accounting. Information or data from the assets within this organizational boundary are often consolidated to describe the overall performance of the company. There are two primary methods of consolidation: the **Operated** (or operational control) method and the **Equity** (or equity share) method. These two methods enable the company to either separately report performance for only those assets under its management responsibility or report performance in proportion to the company's share of ownership of all assets. Depending on the purpose of the data, reporting organizations may choose either boundary consolidation method.

Under the **Operated** boundary, a company reports performance by consolidating 100 percent of the indicator data or information from operations over which it has management control and no data from operations it does not manage. Generally, for reporting purposes, oil and gas companies may define the operated boundary as all of those facilities where the company's management has accountability and authority for implementing its policies and systems covering health, safety, environmental, social and/or economic performance associated with the facility. This boundary may be of importance to a number of stakeholder groups, such as regulators, employees and communities. Typical examples of issues that may be reported under this boundary include labor standards, safety of operations or plant emissions.

Under the **Equity** boundary, a company reports performance by consolidating indicator data or information in proportion to its percentage share of equity in (or benefits from) its various subsidiaries, associates and joint ventures. This boundary may help identify the potential exposure of a company to risks associated with an issue.

Although oil and gas companies may choose to report their performance using either the operated or equity boundary method, there may be value in reporting by both methods. Companies should clearly state the basis on which they are reporting. (Refer to Value Chain in Section 2.8.)

Organization Activities

Once organizational boundaries have been defined, it is then good practice to also clarify the range of activities that are covered by company sustainability or non-financial performance reports. The oil and gas industry encompasses a wide variety of operations, ranging from the discovery and production of oil and gas to the delivery of petroleum products to consumers. Oil companies typically divide these operations into different businesses, most commonly:

- Upstream Operations — the exploration, development, and production of oil and gas
- Downstream Operations — the refining, processing, distribution, and marketing of products derived from oil and gas
- Chemicals — the manufacture, distribution, and marketing of chemical products derived from oil and gas (petrochemicals)

For clarity, further detail can be included on activities falling within the boundary, such as shipping or road tankers, office and laboratory facilities or construction projects.

Although large, integrated oil and gas companies participate in all of these businesses, smaller companies may have operations in only one, or part of one, of them. In addition, both large and small oil and gas companies may engage in one or more secondary activities that are not typically associated with the oil and gas industry, including:

- Coal mining
- Power generation
- Natural gas transmission
- Renewable energy systems
- Specialty chemical production
- Metals production

The way in which oil and gas companies divide their activities into different businesses varies from firm to firm. As well as reporting consolidated company performance, companies often separately report data for different activities, particularly where there are important differences between the activities for the indicator.

2.6 Stakeholder Engagement

Effective reporting can provide an important foundation upon which a company can enhance or improve stakeholder dialogue. Effective stakeholder engagement can lead to cooperative relationships, with the potential to produce solutions to shared problems. As noted in Section 2.3 it is important to identify which stakeholder groups are the primary audiences for the company's report. The process of stakeholder engagement can be very helpful in determining the relevance of certain issues covered in the report (see Section 2.1).

In reporting on stakeholder engagement, companies typically identify the major stakeholder groups or audiences for their report, generally describe how they consult with them, identify the relevant issues for reporting, and respond to feedback on the reported issues. Additionally, the reporting company may consider using quantitative indicators to illustrate the application of its policy and approach to stakeholder consultation (e.g., the frequency of consultations by type of consultation and by stakeholder group).

2.7 Management Systems

Many companies in the oil and gas industry employ management systems as a principal means to continually improve business performance. The efficacy of such systems is often discussed in sustainability or non-financial indicator reports. Usually, management systems apply a quality systems approach to comprehensively and methodically manage various operational and business activities. A management system typically consists of a cyclic "plan, implement, assess and adjust" process that takes learning and experiences from one cycle and uses them to improve and adjust expectations during the next cycle. Today, companies are increasingly integrating aspects of the sustainable development concept into their management systems.

Reporting companies often describe and give evidence of how they are using a systematic approach in managing health, environment, safety and social issues. In doing so, companies may choose to report on various aspects of management systems. Some examples include:

- Key elements of the system
- Accountability within the organization for delivery of the system
- A description of key issues covered by the policy
- If and how improvement objectives are set, monitored, and achieved
- Monitoring, measurement and review of performance
- Risk assessment and risk management
- Review of performance compliance
- Use of external guidelines, norms, principles, conventions, standards, etc., which the company has supported, adopted or implemented as part of its management approach

In this document, management systems are identified as core indicators in the sections covering Environmental and Health & Safety performance indicators (ENV—6 and H&S—1, respectively). In many companies these may be combined into an integrated EHS management system. Some companies are also beginning to use management systems on a broader scale by integrating social aspects into their overall EHS management system or integrating other approaches for systematically managing socio-economic issues. Thus, although there are no commonly accepted indicators for socio-economic management systems, companies reporting on social issues may describe how their management approach is evolving and developing. (See Section 9 for general references to management systems.)

2.8 Trends in Reporting

Assurance Processes

Increasingly, companies are using internal and/or external assurance processes to enhance the credibility and quality of their sustainability or non-financial indicator reports. Although this document makes no specific recommendations about assurance processes to use, evidence is emerging regarding companies that employ internal systems and processes that provide management with confidence in the quality of the reported information. External verification is another approach used by some companies to provide independent assurance regarding the credibility of content and processes used in producing sustainability or non-financial reports.

Materiality

The concept of materiality in sustainability reporting refers to the outcome of a process that determines what information is to be disclosed by assessing its level of importance and relevance to the company and its stakeholders.

For this document, the term “materiality” has not been used to avoid confusion with financial accounting definitions of materiality. Instead the word “relevance” is used (see Section 2.1) when referring to information that is of sufficient importance or significance to any user of a company’s report.

Value Chain

Some companies are beginning to consider reporting on wider impacts of their activities in the context of a value chain that extends beyond the normal activities within its organizational boundaries. For example, companies may choose to report on how they are influencing emission reductions or improved social responsibility within their supply chain, or on the customer side, companies may choose to report on programmes aimed at informing consumers about the efficient use of oil and gas products.

An impact may be described as “direct” when an activity is under the company’s control (as owner or operator). When an activity is under another’s control, but the company has some degree of influence over this activity, the resulting impact may be described as “indirect”. By separately addressing relevant indirect impacts, the company is extending the scope of its reporting within its value chain.

Performance Benchmarking

Many oil and gas companies actively engage in EHS benchmarking initiatives and are increasingly involved in sustainability and other non-financial indicator benchmarking. Benchmarking provides an effective tool to improve performance, because it can provide a systematic approach to identify and learn from others about good practices and innovative solutions. It offers an external view of a company’s performance and can help identify what is needed for continual improvement.

Oil and gas companies often rely on industry groups to facilitate benchmarking processes by developing key performance indicators, and by collecting and analyzing performance information. This document provides a common point of reference that can help support broader engagement in benchmarking studies of sustainability or non-financial indicators among oil and gas companies, and thereby encourage good practice sharing to enhance individual company performance.

Section 3 – Environmental Performance Indicators

Introduction

The oil and gas industry recognizes that its operations have potential impacts on the environment. Some of the environmental impacts may have social and/or economic implications. Companies in the industry have made many commitments to manage and minimize negative environmental impacts. Often, these commitments go beyond regulatory obligations. The environmental performance indicators described in this section may be useful in describing the performance of company operations.

Category	Core/Additional	Indicator
Spills and Discharges	Core	ENV–1: Hydrocarbon Spills to the Environment
	Core	ENV–2: Controlled Discharges to Water
	Additional	ENV–A1: Other Spills and Accidental Releases
	Additional	ENV–A2: Other Effluent Discharges
Wastes and Residual Materials	Additional	ENV–A3: Hazardous Waste
	Additional	ENV–A4: Non-Hazardous Waste
	Additional	ENV–A5: Recycled, Reused or Reclaimed Materials
Emissions	Core	ENV–3: Greenhouse Gas Emissions
	Core	ENV–4: Flared and Vented Gas
	Additional	ENV–A6: Other Operational Air Emissions
Resource Use	Core	ENV–5: Energy Use
	Additional	ENV–A7: Freshwater Use
	Additional	ENV–A8: New & Renewable Energy Resources
Other Environmental Indicators	Core	ENV–6: Environmental Management Systems
	Additional	ENV–A9: Biodiversity

A company should consider the applicability of the core environmental indicators to its business and determine whether audiences for its public report(s) would find disclosure of the information relevant and useful. Often, it is helpful to describe environmental performance in terms of quantitative measures as well as in a qualitative context that signifies the relative importance of the indicator. Reporting companies may also choose to report on the additional indicators if relevant to their business.

Indicators such as spills, emissions, wastes and energy use, when expressed as absolute quantities provide a sense of magnitude or scale. Normalization of these quantities facilitates comparisons among organizations of different sizes, and can help express environmental performance in economic terms. Normalization is described in more detail in Section 7.

For the indicators listed above, companies may choose to report performance for all activities that lie within their operational control boundary (i.e. typically those activities where the company has responsibility for environmental management), with the exception being greenhouse gas emissions, where both operational control and equity boundary reporting can be appropriate.

3.1 Category: Spills and Discharges

Core Indicator

ENV—1: Hydrocarbon Spills to the Environment

Definition:

Number and volume of hydrocarbon liquid spills greater than 1 barrel (159 liters) that reach the environment.

Scope:

Hydrocarbon liquids include 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, and refinery petroleum-derivatives. Reporting companies may choose to estimate the hydrocarbon content of spills of oil/water mixtures (e.g., oil-water emulsions, tank bottoms). When appropriate, the scope or basis of the estimate should be stated.

For the purpose of this guidance document, spills include all releases from company operated facilities, such as from:

- Primary or secondary containment into the “environment”, including land (permeable materials like soil, sand, silts, shells, gravel, etc.), ice or water. Earthen berms do not count as secondary containment unless they are engineered to be sufficiently impervious to prevent spilled oil from contaminating underlying soil and/or groundwater.
- Sabotage, earthquakes or other accidental release as a result of events outside operational control.
- Company-owned and operated transport.
- On-going aboveground or underground leakage over time, counted once at the time it is identified.

For the purpose of this indicator, spills do not include:

- Spills to secondary containment or other impermeable surfaces that do not reach the environment
- Workover fluids and synthetic, oil, or mineral based drilling fluids (report under ENV—A1)
- Chemical spills (report under ENV—A1)
- Historical or past leakage that reached the natural environment from tanks, pipes or other vessels, but is not associated with a current release

Purpose:

This is a core indicator because hydrocarbon spills can have negative environmental, reputational and financial impacts.

Reporting Units:

1. Number of hydrocarbon spills greater than one barrel
2. Barrels of hydrocarbon spilled (Conversion: 1 barrel = 159 liters)

Estimation/Calculation Suggestions:

The volume reported should represent the total estimated amount spilled that reached the environment and should not be reduced by the amount of such hydrocarbon subsequently recovered, evaporated or otherwise lost.

Other Considerations:

- **Total number and volume of hydrocarbon spills** — In addition to reporting spills that reach the environment, companies may also choose to report separately the “total” number and volume of all hydrocarbon spills, whether the spill reached the environment or was contained (i.e., did not reach the environment). Thus, total spills may include all hydrocarbon releases from primary containment, including spills that reach the environment, as well as spills that are contained within an impermeable surface or secondary containment. This indicator provides increased transparency regarding performance and is also a measure of operational reliability.
- **Recovered hydrocarbons** — Reporting companies may also report the amount of spilled hydrocarbons recovered which includes the amount that is removed from the environment through short-term spill response activities. It does not include longer-term remediation of the spill site. Oil which evaporates or burns should not be included in recovered volume. This provides an indicator of the effectiveness of immediate oil spill response measures.
- **Land and water spill data** — Companies may consider separately reporting land and water spill data for spills that reach the environment.
- **Lower spill thresholds** — In addition to reporting spills greater than 1 barrel, companies may consider reporting with lower spill thresholds for different sectors or locations if smaller spills are significant in their operations. For example, marketing and transportation may have more small spills than other sectors.
- **Qualitative impacts to the environment** — Companies may also report on significant impacts on the environment as a result of spills in qualitative terms, particularly from larger releases (e.g., over 100 barrels) or from a small release into a sensitive environment.
- **Policies, programmes and initiatives** — Organizations may also describe policies, programmes and initiatives undertaken to prevent accidental releases of oil, chemicals and other process-related liquids to the environment. In addition to spill prevention measures, reporting organizations are also encouraged to report on emergency preparedness and response programmes, plans, organizational structures and affiliations to effectively respond to spills and other emergencies.
- **Third-party carriers** — Companies may also choose to separately report significant hydrocarbon spills from third-party carriers.

Core Indicator

ENV–2: Controlled Discharges to Water

Definition:

Quantities of hydrocarbons present in controlled or regulated discharges to a water environment (both inland waterways or to the sea).

Scope:

This indicator includes the quantity of hydrocarbons discharged to water through produced water discharges and the quantity of hydrocarbons discharged as process effluent from facilities. Discharges from a refinery or other oil and gas processing facility and inland discharges to drainage structures that connect to waterways are included.

This indicator does not include:

- Spills, upsets or accidental discharges (included under ENV—1)
- Spills of oil-based drilling fluids and cuttings (included under ENV—A1)
- Spills of drilling and production chemicals (included under ENV—A1)
- Quantities discharged to third-party treatment facilities
- Discharges of drilling fluids or drilling mud (included under ENV—A2)

Purpose:

This is a core indicator because controlling discharges to water is used industry-wide to reduce environmental impacts.

Reporting Unit:

Metric Tons

Estimation/Calculation Suggestions:

Measured using test methods required or approved by local regulatory authorities (or equivalent applicable standards). For process effluent, total hydrocarbons discharged may generally be estimated by multiplying the discharge volume by the concentration of hydrocarbons (oil and grease).

Additional Indicator

ENV—A1: Other Spills and Accidental Releases

Definition:

Significant non-hydrocarbon spills and accidental releases from operational upsets.

Scope:

Spills and releases include accidental non-hydrocarbon releases such as chemicals, drilling fluids, produced water and other process-related non-hydrocarbon spills resulting in significant operational, environmental or community impact.

Purpose:

To report releases other than liquid hydrocarbon releases and discharges which may be viewed as significant by a company or operating asset. This determination is typically made on a case-by-case basis by the reporting entity.

Reporting Unit:

Qualitative and/or Quantitative (i.e., Barrels, Metric Tons) Measures

Additional Indicator

ENV—A2: Other Effluent Discharges

Definition:

The quantities of permitted or controlled discharges of chemicals or materials other than hydrocarbons.

Scope:

Generally, this indicator includes permitted or controlled discharges other than those covered by ENV—2, such as chemical oxygen demand (COD), sulfides, ammonia, phenols, total suspended solids (TSS), and non-aqueous drilling fluids (NAF) discharged with drilling mud and drill cuttings.

Purpose:

This is an additional indicator because it tends to be of a local significance and varies across the industry. The environmental impacts can vary greatly and are therefore difficult to consistently define and aggregate. Companies are encouraged to report some measured parameters from their discharge streams to the extent that these are viewed as significant by the company or are important to key stakeholders.

Reporting Unit:

Metric Tons

3.2 Category: Wastes and Residual Materials

Additional Indicator**ENV—A3: Hazardous Waste****Definition:**

Quantity of regulated hazardous wastes disposed.

Scope:

For the purpose of this guidance, hazardous waste includes all 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. The reporting entity should clearly state the basis for what is included in this indicator. This indicator includes both on-site and off-site disposal.

Hazardous waste does not include:

- Hazardous wastes treated on-site and rendered non-hazardous
- Non-hazardous waste (list under ENV—A4)
- Hazardous wastes that by reuse, reclamation, or recycling cease to be regulated as hazardous wastes (list under ENV—A5)

For the purposes of this guidance, “disposal” is considered as any waste management option classified as “disposal” by an appropriate regulatory agency or authority. This could include: land filling or burning without energy recovery of waste; and/or management of waste other than reuse, recycling, reclamation or other beneficial use.

Purpose:

Effective waste management is an indicator of operational efficiency. Some hazardous wastes, when not properly managed, can have significant environmental, social and economic impacts. It is an industry-wide issue though it is not managed or defined consistently worldwide and is often an issue of a local nature.

Reporting Unit:

Metric Tons

Estimation/Calculation Suggestions and References:

Quantities of hazardous wastes are measured using methods required or recommended by regulatory agencies or authorities. The hierarchy below gives guidance on some recommended methods of measurement and estimation. The method for determining mass should be clearly stated.

- Direct measurement of mass on site.
- Direct measurement by transporters at the point of shipping or loading (consistent with shipping papers).
- Direct measurement of mass by waste disposal contractor at the point of waste disposal or by transporters, at the point of shipping or loading.

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal is an international agreement that provides for cooperative and controlled management of hazardous wastes (adopted in 1989 and entered into force on May 5, 1992). This agreement provides an international definition of hazardous wastes (Articles 1, 2 and 3) and can be used as a resource for the purpose of identifying and reporting this indicator. (see www.basel.int)

Other Considerations:

- **Sector Differences** — Operating sectors will have significantly different regulated hazardous waste streams with different treatment and management options available. In downstream operations, major shutdowns and periodic maintenance activities can result in short term increases in hazardous waste generated. Large, one-time construction projects, remediation activities, and high-volume aqueous wastes should be tracked separately. For upstream operations, drilling operations, large one-time construction projects, remediation activities, and high-volume aqueous wastes can result in large variations in hazardous waste generated. Reporting these waste streams separately may enable companies to better understand and explain year-to-year fluctuations of aggregated hazardous waste data. The scope of waste streams included should be clearly stated.
- **Hazardous Waste Management Programmes** — Companies may choose to report on their efforts to minimize the generation of hazardous wastes and on processes used to ensure that company hazardous waste management practices adhere to regulations and are conducted in a safe manner.

Additional Indicators

ENV–A4: Non-Hazardous Waste

Definition:

Quantity of non-hazardous waste disposed.

Scope:

Non-hazardous waste includes industrial wastes resulting from company operations that are not designated or listed as “hazardous” by a country or regulatory agency. This category consists of materials disposed of both on-site and off-site, including trash and other office, commercial or packaging related wastes.

For the purposes of this guidance document, “disposal” is considered any waste management option classified as ‘disposal’ by the appropriate regulating authority. This could include: land filling or burning without energy recovery of waste and/or management of waste other than reuse, recycling, reclamation or other beneficial use.

Purpose:

Effective waste management is an indicator of operational efficiency. Some wastes, when not properly managed, can have significant environmental, social and economic impacts. It is an industry-wide issue though it is not managed or defined consistently worldwide and is often an issue of a local nature.

Reporting Unit:

Metric Tons

Other Considerations:

- **Sector Differences** — Operating sectors will typically generate different non-hazardous waste streams. In downstream operations, major shutdowns and periodic maintenance activities can result in short term increases in waste generated. For upstream operations, it is recommended that drilling wastes and wastes disposed by deep-well disposal and one-time wastes not related to production operations are reported separately. Large one-time construction projects, remediation activities, and high-volume aqueous wastes can also be reported separately. Reporting these waste streams separately will enable the reporter to better understand and explain year-to-year fluctuations of total waste generated. The scope of waste streams included should be clearly stated.

Additional Indicator

ENV—A5: Recycled, Reused or Reclaimed Materials

Definition:

Total quantity of materials recycled, reused or reclaimed, that would otherwise have been considered hazardous or non-hazardous wastes.

Scope:

For purposes of this guidance document, recycled materials are all materials from an industrial or commercial process that are not sold as products or disposed of as wastes, but are reused (e.g., used as a raw material for another process), reclaimed or otherwise recovered for beneficial use. Examples of recycled, reused, recovered materials may include: catalysts sent for reclamation; sludge used for fuel; reused construction materials; reclaimed used oil and solvents; recycled scrap metal; drums and pallets that are returned or reused; plastic, glass, or paper that is reused or reprocessed.

Purpose:

Recycling of materials is one way of minimizing wastes and reducing impacts on the environment. Reuse and recycling is a measure of resource use efficiency and provides opportunities for conservation as well as operating efficiency. This is recommended as an additional rather than a core performance indicator because recycling and reuse are often dependent on local authority, infrastructure and regulations.

Reporting Unit:

Metric Tons

3.3 Category: Emissions

Core Indicator:

ENV–3: Greenhouse Gas Emissions

Definition:

Annual emissions of greenhouse gases (GHG), reported as total CO₂ equivalent (global warming potential) and as individual species, from facilities managed and/or owned by the company.

It is recommended that the 2003 publication, IPIECA/API/OGP *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions*, be used as the primary reference for voluntary reporting of GHG emissions. The following summarizes key aspects of the referenced GHG reporting guidelines.

Scope:

Individual quantities of six greenhouse gases (GHG) covered under the Kyoto Protocol emitted to the atmosphere from oil and gas operations:

- Carbon Dioxide, CO₂
- Methane, CH₄
- Nitrous Oxide, N₂O
- Hydrofluorocarbons, HFCs
- Perfluorocarbons, PFCs
- Sulfur Hexafluoride, SF₆

Greenhouse gas emissions from the oil and gas industry arise from a variety of different types of sources:

- Combustion emissions – including stationary and mobile combustion sources
- Process emissions
- Fugitive methane emissions
- GHG associated with imports of steam and electricity

For oil and natural gas operations, carbon dioxide (CO₂) and methane (CH₄) are usually the most significant components of GHG emissions. Nitrous oxide (N₂O) is emitted in very small quantities from the combustion of fossil fuels and may be insignificant compared to CO₂. The other greenhouse gases, HFCs and PFCs, are used in refrigeration and SF₆ is used in electrical equipment. It is recommended that oil and gas companies account for and report all significant emissions of each of the six greenhouse gases listed above that fall within their established organizational and operational boundaries.

Although companies may choose to report their corporate GHG emissions either on an operated or equity basis (as defined in the reference documentation above), they are encouraged to employ both operational control and equity share methods. Companies should clearly state under which basis they are reporting.

Direct emissions sources are those owned or controlled by the reporting entity. Direct emissions should include any emissions associated with the production of energy by the entity, such as steam or electricity used by the entity's facility or exported.

GHG emissions do not include:

- Product-use emissions from fuels sold (tracked separately if reported)
- Ozone depleting gases: chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs)
- GHG associated with imports of feedstocks other than steam, heat and electricity (e.g., hydrogen)
- CO₂ sold as product

Purpose:

This is a core indicator because the oil and gas industry emits GHGs which may contribute to some degree to global warming. Many companies have multiple objectives for GHG reporting, including official government reporting, emissions trading and public reporting.

Reporting Unit:

Metric Tons CO₂ Equivalent

Companies are encouraged to report annual emissions for each listed GHG determined to be a significant contributor to overall GHG emissions in metric tons, as well as the CO₂ Equivalent of each GHG, in accordance with published Global Warming Potential (GWP) factors.

Estimation/Calculation Suggestions and References:

1. IPIECA/OGP/API, *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions* (2003). www.ipieca.org/climate/ghg.html
2. API, *Compendium of Greenhouse Gas Emission Estimation Methodologies for the Oil and Gas Industry* (February 2004). api-ec.api.org/filelibrary/Compendium2004Word.zip
3. WRI/WBCSD, *The Greenhouse Gas Protocol: a Corporate Accounting and Reporting Standard* (Revised Draft Chapters, Emission Inventory Improvement Programme [EIIP], World Resources Institute, and World Business Council for Sustainable Development (2003). www.wri.org

Other Considerations:

- Emissions from Product Sales — Emissions that occur as the result of the use of petroleum products are under the control of the products' users, and are most appropriately reported by them.
- Indirect Emissions — Oil and gas companies may wish to report indirect emissions that result from electricity, heat or steam that is imported (i.e., purchased) by the reporting entity for on-site power and heat. Indirect GHG emissions should be reported separately.

Core Indicator

ENV—4: Flared and Vented Gas

Definition:

Total mass or volume of hydrocarbon gas both vented and flared to the atmosphere from operations, and reported separately.

Scope:

Reporters should estimate the total loss of hydrocarbon gas from a facility, i.e., gas which is not processed into product for export or used as fuel by the facility for beneficial use (typically heat or power generation).

This hydrocarbon loss should be categorized for reporting purposes as either flared or vented gas, depending respectively on whether the gas was combusted before being emitted or was emitted to the atmosphere as uncombusted hydrocarbon. Consideration should be given to the magnitudes of these emissions, such that insignificantly small quantities of hydrocarbon gases are not generally reported.

Flared Gas: Companies may report the quantity of hydrocarbon gas that is combusted prior to atmospheric release either from routine flaring operations (annual data based on daily average volumes) or any non-routine flaring events. The following list provides examples of sources of flared gas included under this definition:

- Operations at well sites, production sites, compressor stations, terminals, and natural gas, refined product and petrochemical plants
- All gas flared at operated wells or facilities associated with:
 - well testing programmes
 - solution gas from crude oil batteries
 - overhead vapors from liquids storage systems and glycol dehydrators
- Blow down and pigging operations on gas gathering systems
- Emergency depressuring for safe plant management
- Operations during start-ups and shut-downs
- Refinery flaring

Vented Gas: Companies may report the quantity of hydrocarbon gas vented to the atmosphere during routine and non-routine operations. The following list provides examples of sources of vented gas included under this definition:

- Routine operational venting at well sites, compressor stations, gas plants, refineries and other facilities
- Separators
- Tank flashing
- Pressurized lines or vessels
- Well-testing programmes
- Solution gas from crude oil batteries
- Overhead vapors from liquids storage systems and glycol dehydrators
- Fugitive emissions
- Blow down and pigging operations on gas gathering systems and other pipeline systems
- Start-ups and shut-downs
- Tank or vessel degassing

Reporting Unit:

Metric Tons (or Cubic Meters)

Reporting in metric tons is encouraged because this provides a more precise indicator of environmental impact and product loss. Standard cubic meters is also acceptable as this volume is commonly used by industry operations.

Purpose:

Flared and vented gas is a core indicator because it represents loss of hydrocarbon resource and because the loss results in emissions of GHGs and other gases that may impact the environment. While it is recognized that some flaring and venting of hydrocarbon gas is associated with required emergency relief and safety management systems, reducing other flaring and venting is recognized as a measure of improved operational efficiency and environmental performance.

Estimation/Calculation Suggestions and References:

1. IPIECA/OGP/API, *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions* (2003). www.ipieca.org/climate/ghg.html
2. API, *Compendium of Greenhouse Gas Emission Estimation Methodologies for the Oil and Gas Industry* (February 2004). api-ec.api.org/filelibrary/Compendium2004Word.zip
3. U.S. EPA. *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, AP-42* (GPO 055-000-005-001), U.S. EPA Office of Air Quality Planning and Standards, Fifth Edition, January 1995, with Supplements A, B, and C, October 1996, and Supplement D, 1998. www.epa.gov/ttn/chief/ap42/ap42supp.html

Additional Indicator

ENV–A6: Other Operational Air Emissions

Definition:

Individual quantities of emissions by type released to the atmosphere from oil and natural gas operations during routine and non-routine processing.

Scope:

Emissions should be reported individually. Care should be taken to accurately describe the chemical species that comprise these reported emissions. Common categories of chemical species could include:

- Methane
- Volatile Organic Compounds (VOC — specify what species are included)
- Oxides of Sulfur (SO_x)
- Oxides of Nitrogen (NO_x)
- Particulate matter (PM — specify measurement protocol or range, e.g., PM₁₀ or PM_{2.5} or total suspended particulates)

Companies may also wish to report other chemical species such as carbon monoxide, air toxics, metals, etc., where emissions from such species are relevant and significant.

While performance data to support this indicator may be aggregated for reporting at the global level, impacts from air emissions may be primarily managed by companies at a local level. Therefore, it may be appropriate to report case studies or data which address significant impacts at regional, national and/or local levels.

Purpose:

Air emissions can be the most significant aspects of oil and natural gas operations that may contribute to local or regional impacts to human health, flora and fauna or buildings. Air emissions are most commonly reported to local regulatory agencies. These are additional indicators because they are typically important issues of local or regional concern where impacts from emissions will vary depending on factors such as

source location, height, concentration and temperature, as well as local geography, climate and the state of the receiving air quality.

Reporting Unit:

Metric Tons

3.4 Category: Resource Use

Core Indicator

ENV-5: Energy Use

Definition:

The quantity of primary energy consumed in oil and natural gas operations including the primary energy that is generated on site or imported.

Scope:

Reporters should state the total primary energy consumed by the company's operations to produce its oil, gas and other manufactured products. Primary energy use is an indicator of resource consumption expressed in units equivalent to the energy content of the fuel (calorific value) combusted to produce the power or heat combusted by the facility. This scope excludes electricity as an exported product from power stations and not used as a primary source of energy for onsite operations.

Primary energy consumption results from using self generated electricity, heat or steam onsite. Examples of energy sources include boilers, fired heaters, waste incinerators, gas turbines, gas engines and diesel engines. Fuel energy consumed can be determined from the fuel energy content of the fuels used to generate the energy or from "name plate rating" information associated with various processing equipment.

Energy use includes the fuels consumed to generate the energy that is purchased (or imported) from other energy sources. Purchased energy should be reported in terms of the energy content of the fuel that the supplier has used to produce the electricity or steam consumed by the reporter's facilities.

Total energy use should be reduced by the quantity of energy that is generated onsite and exported or sold to another user, and can be reported separately.

Do not include:

- Energy content of flared or vented gas

Reporting Unit:

Giga-Joules (one British Thermal Unit = 1055 Joules)

Purpose:

Energy use is a core indicator, because it is an industry-wide and global fundamental indicator of resource consumption in the oil and gas industry and is associated with the generation of greenhouse gases (GHGs).

Normalization of primary energy used per unit of hydrocarbons produced or refined is a measure of energy intensity. It is the total quantity of energy consumed per unit of processed product.

Estimation/Calculation Suggestions and References:

1. North American Manufacturing. *North American Combustion Handbook*, Volume I: Combustion, Fuels, Stoichiometry, Heat Transfer, Fluid Flow, ISBN 0-9601596-2-2, Third Edition, Cleveland, Ohio, 1986.
2. IPIECA/API/OGP, *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions* (2003). www.ipieca.org/climate/ghg.html
3. API, *Compendium of Greenhouse Gas Emission Estimation Methodologies for the Oil and Gas Industry* (February 2004). api-ec.api.org/file/library/Compendium2004Word.zip

Other Considerations

- Energy Efficiency — Companies may also report initiatives and progress toward improving energy efficiency and consuming less energy. For example, many petroleum companies are producing energy onsite and using combined heat and power (CHP) plants to improve energy efficiency. Such initiatives reduce energy demand on resources and reduce GHG and other emissions associated with the combustion of fuels. For refineries, indexes are generally used to provide better comparability of energy efficiency performance and companies may additionally report these indexes to provide greater consistency with their energy management systems.

Additional Indicator

ENV—A7: Fresh Water Use

Definition:

Report fresh water use or consumption in oil and natural gas operations where availability is a significant issue.

Scope:

This indicator includes all fresh water used from public utilities, water wells, lakes, ponds, streams and rivers where fresh water supplies are an important local or regional issue. The definition of “fresh water” varies in accordance with local statutes and regulations. Includes fresh water purchased or free issue to site from a town’s or municipality’s water supply whether surface or groundwater. Additionally where applicable, companies are encouraged to report on water reuse in lieu of fresh water stocks.

Purpose:

Fresh water availability may have significant local implications where fresh water resources are constrained due to limited supplies or overuse. This is an additional indicator because of its potential importance to local communities where access to adequate water supplies is a critical issue.

Reporting Unit:

Qualitative impacts or quantitative amounts of fresh water consumed in millions of barrels (Mbbbls).

Additional Indicator

ENV—A8: New and Renewable Energy Resources

Definition:

Initiatives to develop, produce or use alternative or renewable energy sources.

Scope:

Identify company renewable energy goals, commitments, plans and projects that drive renewable energy development, production and use. Renewable energy is defined as energy taken from energy sources that are inexhaustible, e.g., wind, solar, geothermal energy. Alternative energy sources may or may not be depletable and include fuels (such as hydrogen, bio-fuels and biomass) for which there is a limited infrastructure for mass delivery.

Reporters should indicate the size of the business with regard to new or renewable energy represented as production, sales, investment or other, as most appropriate.

Purpose:

This is an additional indicator because its significance and applications can vary across industry and individual companies. This indicator encourages use and development of innovative technologies to conserve non-renewable energy sources and to develop and market energy that is less carbon intensive.

3.5 Category: Other Environmental Indicators

Core Indicator**ENV—6: Environmental Management Systems****Definition:**

Implementation and coverage of an Environmental Management System.

Scope:

Reporters should describe the company's status in terms of implementing an environmental management system, if applicable, including the extent to which the system is applied across the company's operations.

An environmental management system is one way of applying a disciplined and systematic approach to managing environmental and operational activities. This approach uses a cyclical process that takes experience and learning from one cycle and uses this to improve and adjust expectations during the next cycle. Management systems provide a process to help identify significant aspects of a company's activities which may impact the environment and to manage the aspects by establishing investigative and improvement objectives or operational control measures. An environmental management system may be integrated into an overall environmental, health and safety management system or may stand alone. Refer to Section 2.7 for further details.

Purpose:

Environmental management systems demonstrate how companies apply a systematic and consistent approach to manage various operational and business activities which impact, or have the potential to impact, the environment. Many companies within the oil and gas industry can also show how they employ management systems as a principal means to continually improve the environmental performance of their business operations. Performance measurement and reporting is typically an element of a management system.

References and Supporting Documents:

1. API, API Publication 9011, *Model Environmental, Health & Safety (EHS) Management Systems and Guidance Document*, Order No. R9100S (Washington, D.C.: American Petroleum Institute, October 1998). www.api.org

2. OGP, *Guidelines for the Development and Application of Health, Safety and Environmental Management Systems*, Report No. 6.36/210 (United Kingdom: International Association of Oil & Gas Producers, July 1994). www.ogp.org.uk/Publications/index.asp
3. ISO, *Environmental Management System-Specification with Guidance for Use*. ISO 14001 (Geneva: International Organization for Standardization, 1996). www.iso.ch/iso/en/iso9000-14000/iso14000/iso14000index.html

Additional Indicator

ENV—A9: Biodiversity

Definition:

Description of the company's approach and progress on managing biodiversity impacts associated with activities in terrestrial, fresh water and marine environments.

Scope:

Reporters should identify any company policies or directives that provide for biodiversity protection, including biodiversity protection goals or commitments set by the company or major business segments. Describe management strategies, programmes, campaigns, projects and good practices that are employed to protect biodiversity and sensitive environments.

Purpose:

To demonstrate, in qualitative terms, company efforts to manage potentially beneficial and detrimental impacts on biodiversity in terrestrial, fresh water and marine environments from industry operations. Biodiversity is an additional indicator because impacts may include changes to natural habitats resulting from activities and operations, and tend to be localized in nature, particularly in areas of high environmental sensitivity or with an important biodiversity.

Reporting Unit:

Qualitative

Section 4 – Health & Safety Performance Indicators

Introduction

The oil and gas industry recognizes that some health and safety hazards are inherent in its operations and products. Companies in the industry have made many commitments to achieve excellence in managing these risks. Often these commitments go well beyond regulatory obligations. The health and safety performance indicators described in this section are generally recognized as good indicators that may help companies manage operations and promote improvements in health and safety performance.

Category	Core/Additional	Indicator
Health & Safety	Core	H&S—1: Health & Safety Management Systems
	Core	H&S—2: Employee Participation
	Core	H&S—3: Workforce Health
	Core	H&S—4: Occupational Injury and Illness Rates
	Core	H&S—5: Product-related Health Risks

4.1 Category: Health & Safety

Core Indicator

H&S—1: Health and Safety Management Systems

Definition:

Implementation and coverage of an Occupational Health and Safety Management System.

Scope:

Reporters should describe the company's status in terms of implementing an occupational health and safety management system.

An occupational health and safety management system is a process that applies a disciplined and systematic approach to managing safety and health activities. This approach uses a cyclical process that takes experiences and learning from one cycle and uses them to improve and adjust expectations during the next cycle. Management systems should convey a company's structure, responsibilities, practices, procedures, and resources for implementing occupational health and safety management, including processes to identify root causes of poor performance, prevent recurrences, and drive continuous improvement. A health and safety management system may be integrated into an environmental, health and safety management system or may stand alone.

Purpose:

Many companies within the oil and gas industry employ management systems as a principal means to achieve continuous improvement of business performance including performance against health and safety objectives.

Comment:

The International Labour Organization (ILO) Guidelines offer good guidance on the establishment of a Health and Safety management system. Many other accepted approaches are available (e.g. OGP, British Standards Institute and individual company management systems). Some recommended sources are listed below.

References and Supporting Documents:

1. API, API Publication 9011, *Model Environmental, Health & Safety (EHS) Management Systems and guidance Document*, Order No. R9100S (October 1998). www.api.org
2. OGP, *Guidelines for the Development and Application of Health, Safety and Environmental Management Systems*, Report No. 6.36/210 (July 1994). www.ogp.org.uk/Publications/index.asp

Core Indicator**H&S—2: Employee Participation****Definition:**

Description of joint management and employee safety and health programmes and procedures to ensure participation of employees at all levels in safety and health dialogues.

Scope:

Describe the structure of joint management and employee safety and health mechanisms set up to facilitate active employee involvement in safety process improvements and consultations. Include in the discussion how these mechanisms are functionally integrated into the overall health and safety management system and/or how participation of employees through all levels in the company is encouraged. Describe the current status of employee access to and/or participation in safety and health consultations or dialogues, including plans to address any need for improvement.

Contract employees often have their own employee and management health and safety programmes that are the responsibility of their direct management. Consideration should be given to describing the interactions between company employee participation mechanisms with those of the contractors and partners working on company sites.

Purpose:

Employee participation programmes that address worksite health and safety issues are important in all work environments. It is widely acknowledged that the advantage of employee participation is the in-depth practical knowledge of specific tasks coupled with the larger overview of company policies and procedures. Another significant benefit is the enhancement of a cooperative attitude among all parts of the work force toward solving health and safety problems.

This indicator acknowledges that there are a variety of mechanisms available to promote active employee participation in safety and health efforts. Companies are encouraged to report on those mechanisms that support full involvement of the workforce in suggesting safety and health improvements.

References and Supporting Documents:

1. ILO Report of the Director General: Decent Work (The International Labour Organization, 87th session, Geneva, June 1999).
2. ILO Tripartite Meeting on the Promotion of Good Industrial Relations in Oil and Gas Production and Oil Refining (The International Labour Organization, Geneva, 25th February – 3rd March 2002).

Core Indicator

H&S—3: Workforce Health

Definition:

Existence of programmes and practices to understand the general health risks and experiences affecting the local workforce.

Scope:

Describe any processes and programmes the company has for identifying the general workforce health problems that are most significant in each location and approaches used to address these health problems. This indicator addresses health problems in the workforce that are both work-related and non work-related. It could include health issues that are prevalent in the communities where businesses are located.

Sources of information can include local public health officials, medical absenteeism data, health benefits data, information from company sponsored medical clinics, health impact assessment (HIA) information, knowledge of work-related incidents and summary data from employee personal health risk and wellness data. The programme to understand work force health issues will vary widely by location. Dialogue with employees is an effective method of obtaining a good understanding of opportunities for improvement.

Purpose:

Understanding the health profile of the local workforce (e.g., frequent diagnoses, health concerns and lifestyle risks) is important to identify opportunities to improve employee health, employee productivity and the company's business performance.

Comment:

Communicable diseases pose a serious threat to employee health in many areas of the world in which the oil and gas industries operate. HIV/AIDS is a good example of a workforce health issue that requires special focus in some areas of the world. In other locations the primary employee health concerns may be very different (e.g., substance abuse, cardiovascular disease or injuries from automobile use). Although there is no uniform approach, evaluations of potential diseases, workforce health issues, and causes of lost work days could help determine the most important issues and appropriate preventative measures in each location. Nonetheless companies should be able to describe general approaches and give specific examples. References are meant to suggest the breadth of health issues that may be considered depending upon location.

References and Supporting Documents:

1. API, *Five-point Approach to Addressing Workplace Ergonomics* (August, 2004)
2. International Labour Organization, *An ILO Code of Practice on HIV/AIDS and the World of Work* (2001). www.ilo.org/public/english/protection/trav/aids/index.htm
3. IPIECA, *HIV/AIDS Management Tools for the Oil and Gas Industry* (2003).
4. OGP, *Substance Abuse: Guidelines for Management* (June 2004).
5. CDC, *Guidance for Persons Who May Have Been Exposed to Severe Acute Respiratory Syndrome (SARS)*, (January 2004).
CDC, *Guidelines about SARS for Persons Travelling to Areas Where SARS Cases Have Been Reported*, (April 2004). www.cdc.gov/ncidod/sars/travel_advice.htm
6. United Nations Programme on HIV/AIDS / Global Business Council / Prince of Wales Business Leaders' Forum, *The Business Response to HIV/AIDS: Impact and Lessons Learned* (2000). www.businessfightsaids.org

7. Health and Safety Executive, *Draft - Suite of Management Standards on Work-related Stress* (January 2003).
Health and Safety Executive, *Real Solutions, Real People: A Managers' Guide to Tackling Work-related Stress*. www.hse.gov.uk/stress/index.htm

Core Indicator

H&S—4: Occupational Injury and Illness Rates

Definition:

Description of a system for recording occupational injuries and illnesses, and reporting them as the following rates:

- Total Injury Rate,
- Total Illness Rate,
- Lost Time Injury Rate
- Fatality Rate.

Scope and Reporting Units:

Guidance on recordability criteria for occupational injuries and fatalities is given in the “References and Supporting Document” summary (below). While it appears that OSHA recordkeeping guidance is frequently employed across the industry for global corporate reporting, there is not adequate consensus at this time to recommend this as a standard practice throughout the oil and gas industry.

Work-related incident rates (frequencies) for total recordable injuries, total recordable illnesses and lost time injuries are calculated on a basis of number of incidents per 1 million hours worked. The fatality rate is calculated on a basis of number of fatalities per 100 million hours worked.

Reporting of total injury, lost time injury and fatality rates should include separate and combined rates for both company employees and contracted workers. The total illness rate should be reported for company employees only.

Purpose:

In addition to being a regulated reporting requirement in most countries, the use and evaluation of incident rates underpins consistent standards of health and safety management for a company's operations globally and facilitates performance benchmarking among oil and gas companies with the aim of identifying and sharing best practices.

Comment:

A review of OGP, OSHA and CEFIC Incident Reporting Guidelines has revealed these guidelines are reasonably aligned. A key difference is OSHA's use of 200,000 exposure hours in calculating incident rates, whereas OGP and CEFIC guidelines use 1,000,000 exposure hours to calculate normalized incident rates. For consistency, use of 1 million exposure hours is recommended as the default basis for calculating oil and gas industry recordable injury, recordable illness and lost time incident rates. For calculating fatality rates, 100 million hours is recommended. If different guidelines or reporting criteria are more appropriate for a company's operations, their use should be clearly stated in the report. Key differences between the guidelines used and the recommended OGP/OSHA/CEFIC criteria should be identified.

Due to inconsistencies in contractor definitions of illness, collecting reliable data on contract employee illnesses is not feasible. Global illness rates should be reported only for company employees.

References and Supporting Documents:

1. OGP, *Health and Safety Incident Reporting Users' Guide*, Report No. 6.5/336 (January 2003). This "User's Guide" for reporting occupational injuries and illnesses is typically updated annually, usually in the first quarter of each year. Use of the most recent guide is recommended.
2. U.S. Dept. of Labor, Occupational Safety & Health Administration, *Occupational Injury and Illness Recording and Reporting Requirements*, 29 CFR Part 1904 (January 2001).
www.osha.gov/recordkeeping/index.html
3. CEFIC, *Reporting of Occupational Illness Frequency* (European Chemical Industry Council, February 2001)

Core Indicator

H&S—5: Product-Related Health Risks

Definition:

Existence of a process to invest in and act on product-related knowledge, and to communicate results of the risk characterization and management process to customers and the public.

Scope:

Describe processes and programmes that the company has in place for characterizing and managing product health risks, and to make the results available to customers and the public. This process applies to all products sold to customers.

Comment:

A full discussion of a process that may be used as an example is in the American Chemistry Council (ACC) document (see reference below). This indicator does not require that a company's detailed risk characterization be made public. The indicator anticipates that each company will make a decision about what information it will report.

References and Supporting Documents:

1. ACC (American Chemistry Council), *Guidelines for Risk Characterization and Management* .

Section 5 – Social Responsibility Performance Indicators

Introduction

As in other sections, indicators have been split into core and additional. Companies are encouraged to report all core indicators. Where the indicator is not important or relevant to its operations, describe why this is the case.

Category	Core/Additional	Indicator
Human Rights	Core	SOC–1: Human Rights
Business Ethics	Core	SOC–2: Bribery and Corruption
	Core	SOC–3: Political Contributions
	Additional	SOC–A1: Political Lobbying and Advocacy
Employment Practices	Core	SOC–4: Non-Discrimination and Equal Opportunity
	Additional	SOC–A2: Employee Satisfaction
	Core	SOC–5: Training and Development
	Core	SOC–6: Non-retaliation and Grievance System
	Additional	SOC–A3: Local Employment Opportunities
	Core	SOC–7: Labor Practices
Community & Society	Core	SOC–8: Community Relationships
	Additional	SOC–A4: Social Investments
	Additional	SOC–A5: External Capacity Building
	Additional	SOC–A6: Indigenous Communities
	Additional	SOC–A7: Resettlement and Land Rights
	Core	SOC–9: Security

Reporting in the area of social responsibility is still developing. As a result, the majority of indicators in this section propose that the reporting company describe its management approach to a social responsibility issue. Where this may not be feasible, the use of case study examples is encouraged as a first step. Where a company’s management of an issue is more advanced, companies are invited to report quantitative indicators if they consider it appropriate and feasible. Examples of quantitative indicators are given within the scope of some indicators but a company is encouraged to determine its own measures of an indicator. It is hoped that from open experimentation, the development of quantitative industry indicators in this area will become more feasible for future versions of this guidance document.

Oil and gas companies can find themselves operating in challenging environments by nature of the location of oil and gas reserves. The challenges that will be faced will not be consistent across a company's operating areas. Companies may therefore acknowledge and respond as appropriate to the particular challenges they face in any given area.

If appropriate, companies may choose to further develop reporting practices by describing any mechanisms to monitor implementation of their policies and/or procedures, and the outcomes of this monitoring.

5.1 Human Rights

Core Indicator

SOC-1: Human Rights

Definition:

Description of policies and/or procedures to address human rights broadly, as relevant to operations, including implementation progress.

Scope:

The reporting company is encouraged to describe the key elements of its systematic management approach to human rights. The use of management systems is generally discussed in Section 2.7.

Qualitative case study material may also be presented for illustrating the implementation of human rights policy, such as: employee training; consideration of human rights impacts as part of investment and procurement decisions; selection of suppliers/contractors; and internal or external monitoring. The indicator should be reported at a global level with case study material likely to be presented at national or local levels.

If appropriate, companies may choose to further develop reporting practices by describing any mechanisms to monitor implementation of their policies and/or procedures, and the outcomes of this monitoring.

Purpose:

Human rights are generally interpreted as the basic liberties allowing a person freedom to live a dignified life, freedom to express independent beliefs, and freedom from abuse and violations. For the purposes of this guidance, "human rights" are defined by the Universal Declaration of Human Rights (UDHR), which was adopted by the UN General Assembly on December 10, 1948. These include for example, freedom of opinion and expression, and the right to equal protection before the law.

Governments have the primary responsibility for protecting and promoting human rights. They have the ability to ratify international conventions and adopt legislation incorporating them into domestic laws. However, the private sector also has a role in respecting human rights, within the legitimate role of business and regardless of the particular legislative frameworks in which it operates. The purpose of this indicator is to encourage companies to describe the policies, practices and/or procedures they use to support human rights, and in so doing contribute to a more stable and productive business environment.

Useful references for this section can be found at:

1. The Universal Declaration of Human Rights (see www.ohchr.org/english/)
2. ILO Declaration on Fundamental Principles and Rights at work, International Labour Organization. (see www.ilo.org)
3. Voluntary Principles on Security and Human Rights (see the U.S. Department of State (see www.state.gov/g/drl/rls/2931.htm))

5.2 Business Ethics

Core Indicator

SOC-2: Bribery and Corruption

Definition:

Description of policies and/or procedures for addressing bribery and corruption.

Scope:

The reporting company is encouraged to describe the key elements of its systematic management approach to preventing or responding to bribery and corruption. The use of management systems is generally discussed in Section 2.7.

The indicator is to be reported at the global level. Examples of policy and system implementation may be given at regional, national and local levels.

Qualitative case study material may also prove useful for describing how the systems are implemented. In addition, the reporting company may provide quantitative indications to illustrate the use of the system within the company.

If appropriate, companies may choose to further develop reporting practices by describing any mechanisms to monitor implementation of their policies and/or procedures, and the outcomes of this monitoring.

Purpose:

This indicator applies to the company's actions and abilities to prevent its own employees from violating applicable anti-bribery/anti-corruption laws in dealing with third parties with whom the company does business. Domestic legislation for fighting bribery and corruption exists in many countries and may differ between countries.

The bribing of corporate or public officials to obtain business advantage can distort international competitive conditions. Additionally, bribery and corruption can have a negative influence on the protection of human rights.

Useful reference for this section can be found at:

1. OECD Convention on Combating Bribery (see www.oecd.org)

Core Indicator

SOC-3: Political Contributions

Definition:

Description of policies and/or procedures for managing political contributions.

Scope:

The reporting company is encouraged to describe the key elements of its systematic management approach to its political contributions. The use of management systems is generally discussed in Section 2.7.

In addition, the reporting company may consider providing quantitative indications of the amount of money paid to individuals, organizations, political parties and institutions whose prime function is to fund political parties or their candidates or political causes or initiatives. Qualitative, case study material may prove useful for describing how the systems are implemented.

The indicator should be reported at the global level across all operations. In addition, examples of policy and system implementation may be given at regional, national and local levels. Definitions of political contributions vary between countries. Therefore, it would be helpful to explain which definitions or standards are applied in managing a company's contributions, and reflected in what is reported.

If appropriate, companies may choose to further develop reporting practices by describing any mechanisms to monitor implementation of their policies and/or procedures, and the outcomes of this monitoring.

Purpose:

This indicator applies to activities that the company engages in to contribute to public policy debate.

Awareness of public policy debate and legislative developments is key to a company maintaining its competitiveness and viability. However, the contribution of business to public policy and legislation development has the potential to impact society. Therefore, the transparency of political engagement by a company is key to maintaining trust with a variety of stakeholders.

Additional Indicator

SOC-A1: Political Lobbying and Advocacy

Definition:

Description of policy, procedures, and/or management systems for managing political lobbying and advocacy.

Scope:

Definitions of lobbying and advocacy vary between countries. Therefore, it would be helpful to explain which definitions or standards are applied and reflected in what is reported.

The reporting company is encouraged to describe the key elements of its systematic management approach to political lobbying and advocacy. The use of management systems is generally discussed in Section 2.7.

In addition, the reporting company may provide qualitative case study material which may prove useful for describing how the systems are implemented. In particular, the reporting company may also wish to provide a description of priority public policy issues on which it is currently advocating.

The indicator should be reported at the global level across all operations. In addition, examples of policy and system implementation may be given at global, regional, national and local levels.

If appropriate, companies may choose to further develop reporting practices by describing any mechanisms to monitor implementation of their policies and/or procedures, and the outcomes of this monitoring.

Purpose:

This indicator applies to activities that the company engages in to contribute to public policy debate.

5.3 Employment Practices

Core Indicator

SOC-4: Non-Discrimination and Equal Opportunity

Definition:

Description of global policy and/or procedures preventing discrimination among employees in operations, including a description of equal opportunity practices.

Scope:

The reporting company is encouraged to describe the key elements of its systematic management approach to non-discrimination and equal opportunity. The use of management systems is generally discussed in Section 2.7.

Qualitative case study material may also prove useful for describing how the systems are implemented, objectives are set and targets achieved. In addition, the reporting company may provide quantitative indication to illustrate the use of the system within the company.

Companies are encouraged to provide quantitative data regarding workforce composition.

The reporter may also wish to describe any programmes designed to promote and support workforce diversity as culturally appropriate in particular locations. In this instance the reporter should indicate what is meant by diversity within the organization.

The reporter is encouraged to describe the company's global policy illustrated by examples of implementation at national levels.

If appropriate, companies may choose to further develop reporting practices by describing any mechanisms to monitor implementation of their policies and/or procedures, and the outcomes of this monitoring.

Purpose:

This indicator applies to activities that the company engages in for promoting and implementing non-discrimination and equal employment opportunity.

Effective policies on non-discrimination and equal opportunity can promote workforce diversity and ensure access for the company to the skills and contributions that many people can give. Reporting provides transparency of the company's performance in this area.

Additional Indicator**SOC—A2: Employee Satisfaction****Definition:**

Description of programme to gauge employee satisfaction, including the percent of workforce covered by such programmes and how frequently employees are engaged.

Scope:

The reporting company is encouraged to describe the key elements of the programmes carried out to gauge employee satisfaction, including an explanation of how the company defines and measures the aspects of employee satisfaction. In addition, describe the process to follow through on employee input.

Where data is available and used to measure effectiveness, the reporting company may report on the results of specific employee satisfaction programmes indicating, where possible, trends in employee satisfaction across previous years. In addition, the reporting company may consider reporting on any gaps in employee satisfaction identified and how these were addressed.

The indicator should be reported globally and broken down regionally and nationally as appropriate.

Purpose:

This indicator aims to report on the level of employee satisfaction with the company's employment practices, general working conditions, and company compliance with core labor standards.

Employees are a key stakeholder group. Their satisfaction translates into organizational efficiency and can affect external perception.

Core Indicator

SOC—5: Training and Development

Definition:

Description of policies and/or procedures for providing employee training and development opportunities by category of employee and the approximate proportion of employees covered by these policies, guidelines and procedures.

Scope:

The reporting company is encouraged to describe the key elements of its systematic management approach to training and development. The use of management systems is generally discussed in Section 2.7.

In addition, the reporting company may provide quantitative measures to illustrate the implementation of the system within the company such as:

- Average hours of training per year per employee and by category of employee
- Average training investment per year per employee by category of employee
- Percent of employees receiving some training in the reporting period

Qualitative case study material may also prove useful for describing how the systems are implemented. Examples may be the provision of international work experience and the development of international employees, support to the continued development of employees and managing career endings.

The indicator is applicable globally. In addition, quantitative measures may be presented globally and broken down by region or country. Case study material is likely to be presented at the national level.

Purpose:

This indicator applies to activities that the company engages in to improve its human capital through training and development of its employees to enhance competence, job skills, efficiency, knowledge, mobility and experience for meeting job requirements and career goals for all individuals in the workplace.

The development of employees in a manner consistent with company policy and cultural expectations is a key benefit that the company can offer to society in the areas in which it operates. Training and development may be part of a company's programme to ensure diversity and inclusiveness in the workplace and to encourage participation at all levels of the organization.

Core Indicator

SOC—6: Non-retaliation & Grievance System

Definition:

Description of non-retaliation policy and confidential employee grievance system.

Scope:

The reporting company is encouraged to describe the key elements of any systematic management approach to non-retaliation and grievance. The use of management systems is generally discussed in Section 2.7.

The reporter is also encouraged to indicate the approximate proportion of employees covered by these policies and systems.

In addition, the reporting company may provide quantitative indication to illustrate the use of the system within the company, (for example, the number of issues raised annually through employee grievance system). Alternatively, qualitative case study material may prove useful for describing how the systems are promoted and a culture to use and have confidence in such systems is generated.

The assurance of non-retaliation and grievance systems of short-term or contract employees may need to be addressed if this is relevant to the company's operations in any particular area.

The non-retaliation and grievance system should be described relative to global operations. In addition, any qualitative examples are likely to be described at the national or local levels.

Purpose:

This indicator applies to the company's activities to protect its employees' ability to raise their grievances about workplace issues, and/or to identify non-compliance and ethical incidents without fear of reprisal.

Issues that may be covered by a grievance or non-compliance system could include human rights, employee rights, ethics, environmental, safety and health-related issues, and whistle blowing.

Non-retaliation and grievance systems can help to promote fairness and respect for the dignity of all employees and effective engagement between management and workforce regarding employee concerns.

Additional Indicator:

SOC—A3: Local Employment Opportunities

Definition:

Description of policies and/or procedures for hiring and training local employees within a country/region, including at senior levels.

Scope:

The reporting company is encouraged to describe the key elements of any systematic management approach to promote local employment opportunities. The use of management systems is generally discussed in Section 2.7.

In addition, the reporting company may provide quantitative indication to illustrate the use of the system within the company. An example may be local content of the workforce split by category of worker (e.g., senior management, manager, professional, administrative) on a national basis expressed as a percentage. Where relevant such an indicator should be presented against any legal or contractual requirements for local employment opportunities.

Policy and programmes should be described at a global level with respect to a company's own employees with case study materials presented on a local level.

Purpose:

This indicator applies to the company's actions to develop a diverse workforce reflecting its geographic presence, including development of local recruitment in areas of operation – some companies refer to this as 'nationalization.'

The development of the global workforce promotes workforce diversity and access to local knowledge by helping the integration of the company into its geographic locations. In some countries, legal or contractual requirements may exist for local workforce recruitment.

Core Indicator

SOC—7: Labor Practices

Definition:

Description of policies, programmes and/or procedures relating to employee representation, freedom of association, child labor and forced labor practices.

Scope:

The reporting company is encouraged to describe the key elements of any systematic management approach to ensuring appropriate labor practices. The use of management systems is generally discussed in Section 2.7

Qualitative case study material, if appropriate, may also prove useful for describing effectiveness of labor practice policies. Quantitative data may also be presented from the company's sourcing practices that demonstrate compliance of the company with its policies.

If appropriate, companies may choose to further develop reporting practices by describing mechanisms to monitor implementation of their policies and/or procedures, and the outcomes of this monitoring.

Purpose:

This indicator applies to the company's actions in keeping with the fundamental principles and rights at work of the ILO declaration covering freedom of association, child labor and forced labor.

5.4 Community & Society

Core Indicator

SOC—8: Community Relationships

Definition:

Description of processes to assess and manage positive and negative impacts on communities in areas affected by core business activities.

Scope:

The reporting company is encouraged to describe the key elements of any systematic management approach to managing positive and negative community impacts, including both direct and indirect impacts. The use of management systems is generally discussed in Section 2.7.

In addition, the reporter may also describe any programmes carried out to address community impacts on a case study basis. Such case studies should, where possible, illustrate the dimensions of community impacts involved (e.g., programmes to address community health issues, including effects of operations and public health issues, such as HIV/AIDS and malaria). Relevant case studies may also overlap with those presented when reporting related issues such as Social Investment, External Capacity Building, Indigenous Communities, Resettlement and Land Rights.

The results of any community satisfaction perception surveys could also be presented.

The description of policy and management of community impacts should cover the global business and the life cycle of all activities. Case study material is likely to be presented at the local or national level.

Purpose:

This indicator applies to the company's activities to mitigate negative community impacts, and promote positive ones.

Addressing community impacts can contribute to increasing the likelihood of operational success, obtaining and maintaining a license to operate, and reducing risks and uncertainties. Addressing community impacts may directly or indirectly generate benefits in which companies operate.

Useful reference for this section:

Further information on positive and negative community impacts can be found in the IPIECA/OGP publication, *Key Questions in Managing Social Issues in Oil and Gas Projects* (see www.ipieca.org/publications/social).

Additional Indicator**SOC–A4: Social Investments****Definition:**

The amount of social investments by global total and, where feasible, by geographic region. In addition, describe the policies, guidelines and procedures for making social investments.

Scope:

All investments in society should be included; however, this does not include payments such as taxes, royalties or signature payments that may be used for social development for which the ultimate use can not be controlled or influenced by the company. However, payments made by the company for which it can control or influence its final use should be included.

Companies may wish to describe how social investments are distributed among various communities and social recipients who benefit from these investments.

The monetary unit used should be specified.

Purpose:

This indicator applies to the company's measurable investment in society. This investment may arise through charitable donations or involvement in community and social development programmes in the areas in which it operates. Such investments may be voluntary or dictated by contractual or legal obligations.

Reporting on social investment demonstrates a company's contribution to the society in which it operates.

Additional Indicator**SOC–A5: External Capacity Building****Definition:**

Examples of programmes or activities designed to build external capacity in the communities or countries where the company operates (e.g., supporting development of local or national judicial systems or media; supporting or providing education or training to non-employees), including information on positive and negative impacts.

Scope:

External Capacity Building refers to the promotion of skills, knowledge and experience to those outside of the company, leading to the independent development of the societies in which the companies operate.

The reporting company is encouraged to give indicative examples of the types of programmes that may be described against this indicator, such as:

- The objectives of the programme
- How it was done
- What it achieved (describe the achievement with the use of quantified dimensions where possible)
- What has been learned from the programme

Examples can be described at global, regional, national or local levels.

Purpose:

This indicator applies to the company's activities to promote external capacity building. External capacity building may be a component of a company's social investment programme.

Additional Indicator

SOC—A6: Indigenous Communities

Definition:

Description of processes to engage with and address the needs of indigenous communities.

Scope:

The reporting company is encouraged to describe the key elements of its systematic management approach to managing its interactions with indigenous communities. The use of management systems is generally discussed in Section 2.7.

A company is encouraged to indicate to what extent its global operations are in contact with indigenous communities. In addition, case studies may be included to describe the scale of interaction of the company with indigenous communities and how they are given the opportunity to provide input to company decisions and practices.

A variety of definitions for the term indigenous exist. The United Nations, the World Bank and the ILO have specific definitions. Additionally, indigenous is often defined by legislation specific to a country. The reporting company should take care to explain the term indigenous as it is referred to in its report.

The UN definition is given in the glossary of Section 8, and Section 9 contains references to other definitions.

Policy or position may be reported at the global level. Illustrative case study reports can be described at global, regional, national or local levels.

Purpose:

This indicator applies to the company's activities to respect the rights of indigenous communities.

There is some overlap of the world's oil and gas reserves with the territories of the world's indigenous communities. By virtue of their separation from main society, indigenous communities can be vulnerable and are therefore afforded special rights.

Additional Indicator

SOC—A7: Resettlement and Land Rights

Definition:

Description of policies and/or procedures to address resettlement and land rights of impacted communities.

Scope:

The reporting company is encouraged to describe the key elements of its systematic management approach to managing resettlement and land rights of affected communities. The use of management systems is generally discussed in Section 2.7.

Governments have the responsibility to determine and manage land rights. Companies should report how they respect and address impacts on land rights of affected communities.

In addition, the reporting company may provide quantitative indications of its performance regarding its resettlement and land rights policies. For example, this may include:

- Number of cases of resettlements required by the company's activities in the reporting period
- Number of individuals impacted by resettlement through the company's activities in the reporting period.

Qualitative case study material may prove useful for describing how the systems have been implemented in specific cases. For example:

- The specific process implemented
- How fair compensation was provided
- Why resettlement was unavoidable
- The provisions for any land returned at abandonment/closure

The indicator is applicable to a global policy but illustrated by case study at national or local level.

Purpose:

The aim of this indicator is to report on a company's activities to respect land rights, minimize resettlement and provide fair and transparent compensation to local communities.

Useful reference for this section:

Further information on land rights and resettlement can be found in the IPIECA/OGP publication, *Key Questions in Managing Social Issues in Oil and Gas Projects* (see www.ipieca.org/publications/social)

Core Indicator

SOC—9: Security

Definition:

Evidence of implementation of the "Voluntary Principles on Security and Human Rights" or equivalent policies or guidelines related to security and human rights.

Scope:

The reporting company is encouraged to state whether it aspires to implement the “Voluntary Principles on Security and Human Rights” or equivalent policies or guidelines and state to what extent they have been applied.

The reporting company is encouraged to describe the key elements of a systematic management approach to security and the protection of human rights. The use of management systems is generally discussed in Section 2.7

Qualitative case study material may also be presented for illustrating the implementation of security and human rights policies, including human rights training for security personnel.

The indicator should be reported at a global level with case study material likely to be presented at national or local levels.

If appropriate, companies may choose to further develop reporting practices by describing any mechanisms to monitor implementation of their policies and/or procedures, and the outcomes of this monitoring.

Purpose:

The aim of this indicator is to report on a company’s activities to safeguard the integrity of company reputation, personnel and property through appropriate security arrangements. Companies should report any steps taken to ensure that security personnel acting on its behalf or under its control, whether state or private, do not engage in harmful actions that violate the human rights of those with whom they interact.

Section 6 – Economic Performance Indicators

Introduction

The purpose of this section is to suggest economic performance indicators that companies may find useful for sustainability reporting. Companies are encouraged to use these economic indicators, and to choose other financial indicators that they already use in various public financial reports to give an overall picture of their sustainability performance in general terms of income and expenses (or economic inflow and outflow).

The economic dimension of sustainability reporting may not only address the financial performance of the reporting company but also the company's effects on the economic circumstances of its stakeholders and on the local, national and global economic systems in which it operates. Economic performance, therefore, covers aspects of the company's economic interactions.

This section introduces the following Economic Performance Indicators that describe key economic interactions.

Key Interactions	Core/Additional	Indicator
Governments	Core	ECO-1: Tax Expenses
	Additional	ECO-A1: Transparency of Payments
Shareholders	Core	ECO-2: Dividends Paid Plus Share Repurchases
Employees	Additional	ECO-A2: Payroll and Benefits
Suppliers & Contractors	Core	ECO-3: Capital Expenditures
Lenders & Holders of Debt Securities	Additional	ECO-A3: Interest Paid

The intent of these core and additional Economic Performance Indicators is to aid companies in characterizing the relative magnitude of economic outflows as they relate to major stakeholder groups with whom the company interacts. Key stakeholders and their interests that are relevant to the economic contribution of the oil and gas industry include:

- Governments and the economic interaction with oil and gas companies with respect to taxes, royalties and other payments.
- Shareholders and the economic interaction with respect to the payment of dividends, repurchase of outstanding shares of stock and share value.
- Employees and the economic interaction with respect to the payment of wages, benefits, pensions, etc.
- Suppliers and Contractors and the economic interaction with respect to business and development generated in the supply of goods and services to the oil and gas industry.
- Lenders and Holders of Debt Securities and the payment of interest on borrowed capital.

Interaction with local communities is another important consideration that is covered under the additional indicator SOC-4A Social Investments in Section 5.

For reference purposes, many of the traditional financial performance indicators typically reported by oil and gas companies are listed in the Table 6.1 below as examples. Companies may choose to use some of the financial indicators listed in Table 6.1 as well as the core and additional indicators defined in this section of this guidance. The use of such traditional financial indicators can provide helpful context regarding the operational and economic scale of a company's activities for the purpose of sustainability reporting.

This guidance document recognizes that companies and governments use different accounting practices and conventions, as well as different definitions for some financial terms. As a result, some indicators presented in this section may not be comparable to those in other company sustainability reports. For example, certain financial measures defined under generally accepted accounting principles in the United States (U.S. GAAP) may not be the same as those same measures as defined under international accounting standards (IAS). Likewise, indicators that are not defined under any accounting standard (e.g., reserve life or reserve replacement rate) and defined by each company may also be different and not comparable. Therefore, companies may choose to footnote or otherwise highlight areas of data and information in their reports that may not be externally comparable. It is also good practice in a sustainability report to provide brief explanations for the basis or definitions of a company's reported financial and economic indicators.

Traditional Financial Indicators

Companies publishing sustainability reports should consult with their financial organizations that prepare annual reports and other public filings when selecting financial performance indicators that best describe the economic and operational scale of a company's activities for sustainability reporting. The financial indicators provided in Table 6.1 below are intended as typical examples of traditional indicators that companies may choose to include in sustainability reports. As noted above, precise definitions of financial indicators may vary, for example in different countries, and should be obtained from individual company financial departments.

Table 6.1 Examples of Traditional Financial Indicators

Economic Inflow	Net income (in millions of Euros and/or US\$)
Exploration & Production	Production (mboe/day)
	% of Production Attributable to Gas Production (mboe/d)
	Proven Reserves (mboe)
	% of Proved Reserves Attributable to Gas Production (mboe)
	Reserve Life (years)
	Reserve Replacement Rate (%)
Midstream	Gas Sales (mcm/d)
Downstream	Refinery Throughput, Crude Oil Input or Distillation Capacity (mb/d)
	Total Refined Products Sales (mb/d)
Chemical	Total Chemical Sales (in millions Euros and/or US\$)

6.1 Economic Interaction with Governments

Core Indicator

ECO-1: Tax Expenses

Definition:

Globally aggregated annual amount of Income Tax Expenses (or equivalent).

Scope:

Report total Income Tax Expenses as reported in publicly available company income statements, and identify the basis of the measure (e.g., U.S. Generally Accepted Accounting Practices or other conventions).

This indicator does not require total tax to be broken down into amounts of income tax expense related to individual host governments, which may require explicit agreement with host governments (see ECO—A2 indicator).

Purpose:

The intent of this indicator is to characterize the relative magnitude of monies that are paid to nations and governments. Reporting Income Tax Expense (or equivalent) represents a first step that companies can take to consistently describe the amount of income taxes due to host governments. In general, a company has little or no influence on the ultimate use or distribution of the payments made to host governments.

Other Considerations:

- As an additional option, companies may choose to report, in quantitative or qualitative terms on other types of corporate taxes (e.g., property taxes, petroleum revenue tax, excise taxes, etc.), royalties and contractual payments paid to governments as a key stakeholder group. Reporting total tax paid provides an overall indication of a company's economic contribution to nations, in response to fiscal requirements of their governments.

If this approach is taken, deductions may be made for subsidies and other payments received. These may be grants, tax relief and other types of financial benefits that do not represent a transaction of goods or services. The total tax reported should be a globally aggregated amount, and may be reported elsewhere in a company's annual accounts.

Additional Indicator

ECO – A1: Transparency of Payments

Definition:

Description of any policies, initiatives or advocacy programmes for the promotion of transparency of payments to host governments.

Scope:

The reporting company is encouraged to indicate its policy and steps taken to promote transparency of tax, royalty and other payments made to host governments related to extraction of its natural resources (to produce oil and gas). The company may indicate active participation in transparency initiatives or its adoption of any standards on transparency of payments. This may be reported at the global, regional or national levels.

Purpose:

To contribute to better public transparency in the economic interaction between host governments and oil and gas companies.

6.2 Economic Interaction with Shareholders

Core Indicator**ECO-2: Dividends Paid Plus Share Repurchases****Definition:**

Total amount of dividends paid to common stockholders and share repurchases paid, if applicable, during the reporting period.

Scope:

The total amount of dividend paid should refer to the annual aggregate of all dividend payments paid by the corporate company to shareholders, excluding inter-company dividends. If a company provides additional benefit to its shareholders through repurchase of company shares, reporting companies should clearly state whether the amount of cash employed for share repurchase is included in the total.

Purpose:

Oil and gas companies interact with shareholders through the payments of dividends and the variations in value of the company's shares. Through its interactions with shareholders, a company may describe a relevant aspect of its economic contribution to society.

6.3 Economic Interaction with Employees

Additional Indicator**ECO-A2: Payroll and Benefits****Definition:**

Total employee payroll and benefits for the current reporting period.

Scope:

Company employees normally include all permanent full-time staff in pensionable service including expatriates and secondees. Because the definition of "employee" may differ significantly from company to company, the scope and boundaries for payroll and benefits reporting should be clearly stated.

Purpose:

A company makes an economic contribution to society by paying wages and benefits. The intent of this indicator is to characterize, either quantitatively or qualitatively, the relative magnitude of payments and benefits that are paid to employees as a key stakeholder group.

This is currently recommended as an additional indicator because of the differences among companies in different countries in defining who is an employee and to encourage companies to consider the use of this measure as a potential sustainability indicator.

6.4 Economic Interaction with Suppliers and Contractors

Core Indicator

ECO-3: Capital Expenditures

Definition:

Total capital expenditures.

Scope:

Capital expenditures are recommended as a measure that is consistently used and reported by most companies and published in their financial statement, and may include the purchase of goods, materials and services. To provide a more complete view of expenditure with suppliers, companies may choose to separately disclose other non-capital expenditures for goods, materials and services; however it should be noted that such data is less likely to be comparable between companies.

In addition, reporting companies may describe policies, guidelines, and procedures that address local sourcing of goods and supplies. The reporting company may choose to provide a qualitative description of its performance with regard to local sourcing.

Local sourcing refers to the procurement of goods and services from suppliers that are significantly owned by nationals of the country of operation. Local sourcing can contribute to the broader economic development of the country or region where operations are taking place. Local sourcing can also be required by legislation or contractual agreement.

Purpose:

A company makes an economic contribution to society by purchasing goods and services from other companies operating in the economy. The intent of this indicator is to characterize, either quantitatively or qualitatively, the relative magnitude of these expenditures. Reporting on the economic interaction with suppliers and contractors recognizes that these groups, their employees and the communities in which these businesses operate are major stakeholders.

6.5 Economic Interaction with Lenders and Holders of Debt Securities

Additional Indicator

ECO-A3: Interest Paid

Definition:

Interest paid to lenders and holders of the company's debt securities in the reporting period.

Scope:

The company is encouraged to report interest paid as the cost of debt. The reporting company should clearly state whether the Interest Paid includes or excludes capitalized interest.

Purpose:

Oil and gas companies acquire capital from lending institutions and holders of debt securities. Reporting on interest paid provides an indicator of the order of magnitude of this economic interaction between oil and gas companies and these providers of capital.

Section 7 - Normalization Factors

It is generally a good practice to measure and report performance based on both absolute and normalized quantities to provide a more complete and balanced representation of performance and sustainable progress.

Companies report normalized performance indicators for a number of reasons, including:

- Tracking performance over time
- Comparing performance among similar business operations within the company
- Facilitating performance benchmarking with other companies

However, the variability in how companies report normalized data presents a challenge, because companies use different normalization factors for different activities and for different comparison purposes. Companies should normalize performance indicators in ways that make sense for their business and support their decision-making. They should select ratios for external reporting that allow better communication of performance to stakeholders and help stakeholders make better use of the information. Companies should carefully consider what ratio indicators best characterize the benefits and impacts of their business.

Normalization factors will vary. For example, occupational injury and illness data are usually normalized on the basis of the number of employees or number of hours worked, and reported as injury/illness rates. Generally, environmental performance indicators can be normalized on the basis of physical quantities related to output or input. However, the relevance of environmental performance data (spills, discharges, wastes managed and emissions) in the oil and gas industry is very dependent on the type of operational activities within various subsectors of the industry.

The table below lists examples of generic normalization factors that are often associated with various sectors of the oil and gas industry.

Examples of Oil & Gas Industry Sectors	Examples of General Normalizing Factors
Exploration and Production	Production of crude oil, condensates, natural gas liquids and dry gas in barrels of oil equivalent
Refining	Refining throughput
Transportation and Terminals	Product delivered or terminal throughput
Pipeline	Pipeline throughput
Marketing (retail)	Motor fuel sales
Marine	Cargo transported

More detailed examples of normalizing factors for specific applications appear in various publications such as the *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions*, IPIECA/OGP/API (2003).

Section 8 - Glossary

Additional Indicator — An indicator of performance that is generally locally defined and relates to local activities, impacts or stakeholder groups, or is generally not relevant to most activities in the oil and gas industry.

Aggregation — The process by which data from individual sources and/or operations are combined into a single number for a higher-level entity.

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 (MSCF) of gas. One BOE of gas or liquid equals about 6 million Btu.

Basel Convention — The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal was drafted and adopted in 1989, and entered into force in 1992. The Convention is an international treaty that provides for cooperative and controlled management of hazardous wastes.

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, and includes the processes that link these levels together and enable them to function.

Boundary — The description of the scope of reported information in terms of various dimensions, such as organizational, operational, geographic, national, business line, business unit, and other boundaries.

Bribery — Paying money or giving a favor to someone in business or government to influence that person's judgment or conduct in order to gain commercial advantage. (See also **Corruption**.)

Carbon Dioxide — A naturally occurring greenhouse gas that also is a by-product of burning fossil fuels and biomass. It is the reference gas against which other greenhouse gases are measured and has a Global Warming Potential of one.

Child Labor — This refers to the use of children as workers under the minimum ages at which children can enter into different kinds of work. These minimum ages should be fixed and enforced by governments. Within limits, these ages may vary according to national social and economic circumstances. Prohibitions against child labor are consistent with the child's human rights to Education and Just and Favourable Conditions of Work (UDHR Articles 23, 24, 25 and 26).

Co-generation Unit/Combined Heat and Power (CHP) — A facility producing electricity and steam or heat simultaneously using the same fuel supply. Co-generation is more energy efficient than producing electricity and steam separately.

CO₂ equivalent — The mass of a greenhouse gas multiplied by its global warming potential (GWP). It is used to evaluate emissions of different greenhouse gases on a common basis (i.e., the mass of CO₂ emitted that would have an equivalent warming effect).

Core Indicator — An indicator of performance that is generally reproducible and relevant to most activities in the oil and gas industry and of common interest to a wide range of stakeholders.

Corruption — Any dishonest or illegal practice that undermines business integrity. (See also **Bribery**.)

Cuttings — In drilling, pieces of drilled rocks brought to the surface by the returning drilling mud stream.

Discharges — Releases of products, by-products or waste streams into water or land.

Discrimination — A prejudicial outlook, action, or treatment towards a group of people. Discrimination is often based on race, color, sex, religion, political opinion, nationality, social origin, social status, indigenous status, disability, age.

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.

Ecosystem — An integrated system of living species, their habitats and the processes that affect them.

Emissions — The release of gases, vapors, fumes, mist, and particulate matter into the atmosphere.

Energy Efficiency — The ratio of energy output relative to energy input. Alternatively, the quantity of energy reduced (or increased) expressed as a percentage change from a designated base year or other benchmark.

Energy Intensity — The total quantity of energy consumed in processing one unit of hydrocarbon product.

Equality at Work — The premise that all individuals should be accorded equal opportunities to develop fully the knowledge, skills and competencies that are relevant to the economic activities they wish to pursue.

Equity Share — The percentage of ownership or economic interest in an operation.

Exploration and Production (E&P) — See Upstream Operations

Flaring — The burning of gases in a thermal destruction device and includes E&P flaring of associated gas from oil production.

Forced Labor — This refers to the “Right to Freedom from Forced Labour and Servitude”, set out as a basic human right under UDHR Article 24. Forced labor occurs where work or service is exacted by the state or individuals who have the will and power to threaten workers with severe deprivations, such as withholding food or land or wages, physical violence or sexual abuse, restricting peoples’ movements or incarceration. Countries may have definitions of forced labor that are more comprehensive than the ILO’s. The ILO sets minimum standards below which individual countries should not fall.

Freedom of Association — The right of employees to form and join groups for the promotion and defense of their occupational interests.

Fugitive Emissions — Leaks or other emissions, such as particulates, from process or other operating equipment, such as valves, flanges, pump and compressor seals, and open-ended lines, as well as tanks where hydrocarbons are exposed to the atmosphere.

GAAP — Generally Accepted Accounting Principles (cpaclass.com/gaap/gaap-us01a.htm)

Global Warming — The view that the Earth’s temperature is being increased, in part, due to emissions of greenhouse gases associated with human activities.

Global Warming Potential (GWP) — A factor describing the warming potential of a given mass of a particular GHG relative to the same mass of CO₂.

Greenhouse Gases (GHGs) — For the purpose of these guidelines, GHGs are the six gases (or families of gases) listed in the Kyoto Protocol: carbon dioxide (CO₂); methane (CH₄); nitrous oxide (N₂O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF₆).

Hazardous Waste — Waste that is regulated as hazardous, toxic, dangerous, listed, priority, special, or some other similar term as defined by an appropriate national, regional, state, provincial or local regulatory agency or authority.

Human Rights — Basic standards of treatment to which all people are entitled, regardless of nationality, gender, race, economic status or religion. Human rights fall into five general categories: economic, social, cultural, political and civil.

IBLF — Prince of Wales International Business Leaders Forum (www.iblf.org)

ILO — International Labour Organization (www.ilo.org)

Incident — An unplanned event or chain of events that has or could have caused injury, illness or physical and/or environmental damage.

Indigenous Communities, Peoples and Nations — These are defined by the United Nations as: “Peoples and nations are those which having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop, and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems.” Other organizations state definitions for indigenous communities and/or peoples. Examples are the ILO convention 169 and the World Bank. National legislation may also contain legal definition of indigenous status.

Land Rights — The rights of individuals or groups to consultation and compensation where land is to be acquired for any oil and gas project. Such rights can be recognized formally or informally and encompass legal and traditional rights to land.

Local Community Effects — The range of effects (both positive and negative) that an oil and gas project may have on a community and vice versa. Such effects may involve changes to norms, values, beliefs, community structures and composition, the local environment and resources and the local economy.

Methane (CH₄) — A hydrocarbon compound that is the primary component of natural gas and designated a greenhouse gas.

Nitrogen Oxides (NO_x) — A general term for nitrogen oxide gases. These are produced by combustion and contribute to the formation of smog and acid rain.

Non-financial Reporting — Defined, for the purposes of this document, as reporting on the range of environmental, health and safety, social, and economic issues and impacts that relate to oil and gas company operations and products, and is synonymous with *Sustainability Reporting*. Companies may choose to use a variety of other terms to refer to this concept, such as corporate responsibility, corporate citizenship, or contributions to sustainable development. The term ‘non-financial’ is used by some companies to distinguish these reports from more traditional company financial reports, even though both reports include economic indicators.

Non-Governmental Organization (NGO) — A non-profit group organized outside of institutionalized political structures to realize particular social objectives or serve particular constituencies.

Normalization — The expression of one output (e.g., emissions) relative to some aggregated measure of output (see Section 7).

Occupational Illness — Any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to substances or environmental factors associated with the workplace. Occupational illnesses generally result from prolonged or repeated exposures, and may be caused by inhalation, absorption, ingestion of, or direct contact with the hazard. Examples include noise-induced hearing loss, respiratory disease such as asbestosis, and skin disease such as contact dermatitis.

Occupational Injury — Any injury, such as a cut, fracture, sprain, amputation, etc., that results from a work-related accident or from a single instantaneous exposure in the work environment. For purposes of reporting under these guidelines, recordable occupational injuries are those that require medical treatment beyond first aid; such occupational injuries may be severe enough to result in work restrictions, days away from work (lost time injuries), or even a fatality.

Operation — A generic term used to denote any kind of business activity.

Opinion Leaders — Experts in certain subject matter whose opinions and recommendations are highly regarded by peers and sought out by interested public entities.

Particulate Matter (PM) — Finely divided liquid and solid material in emissions from combustion or plant processes.

Petrochemicals — The manufacture, distribution, and marketing of chemical products derived from oil and gas.

Produced Water — Water that is brought to the surface during production of hydrocarbons.

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 or recycled at the end of its usefulness.

Recycled Materials and Residual Materials — Materials from an industrial or commercial process that are not sold as primary products or disposed of as wastes, but are instead recovered, recycled or reused (in either the same process or for a different use).

Renewable energy — Energy derived from sources that are constantly replenished by natural processes, e.g., wind, water, solar, geothermal, and biofuels.

Reporting — Presenting data to internal management and external users such as regulators, shareholders, the general public or specific stakeholder groups.

Resettlement — Relocation of individuals or communities due to conflicting or incompatible land use requirements associated with industry operations, such as use or access for right of way and uses that deprive areas of their traditional use for income generation (e.g., pipeline route across farmland). Resettlement can be voluntary or involuntary.

Secondees — Company or military officials that are transferred to another post for temporary duty.

Spill — An unplanned or accidental release of petroleum hydrocarbons or other liquids from primary or secondary containment that gets into the environment.

Stakeholders — People that the reporting company decides affect or are affected by company operations (e.g., customers, shareholders, management, employees, suppliers, local communities, advocacy groups, and government).

Sulfur Dioxide (SO₂) — An emission that results primarily from the combustion of sulfur in hydrocarbons and contributes to acid rain and other air-quality problems.

Sustainability Reporting — Defined, for the purposes of this document, as reporting on the range of environmental, health and safety, social, and economic issues and impacts that relate to oil and gas company operations and products, and is synonymous with *Non-financial Reporting*. Companies may choose to use a variety of other terms to refer to this concept, such as corporate responsibility, corporate citizenship, or contributions to sustainable development.

UDHR — Universal Declaration of Human Rights (www.ohchr.org/english)

Upstream — 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 vapors, water vapor and other gases, such as carbon dioxide, separated in the processing of oil or natural gas.

Volatile Organic Compounds — Organic compounds, excluding methane and ethane, that contain many hydrocarbons, oxygenated compounds and compounds containing sulfur. VOCs contribute to the formation of ground-level ozone (smog) through reaction with nitrogen oxides and sunlight.

Waste — Material produced as a by-product of an industrial operation for which there is no economic demand and which must be disposed.

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