

# **CONTEXT AND CAVEAT**

#### Oil & Gas

The draft Exposure Draft ESRS Oil and Gas discussed during 2024 by the EFRAG SR TEG and EFRAG SRB was approved by the EFRAG SRB in its 24 September 2024 meeting. However, the Exposure Draft was not published for public consultation in agreement with the EC in the context of the EC Omnibus Proposals in which sector specific standards were no longer included. The draft Exposure Draft is for information purposes only under the understanding that it does not represent an official position of EFRAG.



This paper provides the technical advice from EFRAG SR TEG to the EFRAG SRB, following EFRAG SR TEG's public discussion. The paper does not represent the official views of EFRAG or any individual member of the EFRAG SRB. This paper is made available to enable the public to follow the EFRAG's due process. Tentative decisions are reported in EFRAG Update. EFRAG positions as approved by the EFRAG SRB are published as comment letters, discussion or position papers or in any other form considered appropriate in the circumstances.

#### **Exposure Draft ESRS Oil and Gas**

As approved by EFRAG SR TEG on 6 June 2024 and amended following EFRAG SRB meetings of June, July and September 2024

[draft is still subject to editorial review]

#### **DISCLAIMER**

The [Draft] ESRS *Oil and Gas* is set out in paragraphs 1-115 and the following Appendices, that have the same authority as the main body of the Exposure Draft.

- Appendix A: Defined Terms;
- Appendix B: Application Requirements;
- Appendix C: Application Requirements supporting the assessment of materiality of the information;
- Appendix D: List of datapoints that emanate from EU Law;
- Appendix E: NACE codes: Oil and Gas;

This [Draft] ESRS *Oil and Gas* is also accompanied by non-binding Appendix F: Description of sustainability matters.

This draft also uses terms defined in sector-agnostic ESRS and shall be read in the context of its objective. The terms defined in sector-agnostic ESRS are marked with *italic bold, blue font*.

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# Objective and structure of this [draft] standard

- 1. Consistent with ESRS 1 paragraph 10, the objective of this [draft] ESRS is to specify disclosure and application requirements that enable users of sustainability statements to understand material *impacts*, *risks* and *opportunities*, that are likely to be material for all undertakings in a specific sector and that are not covered, or not sufficiently covered, by topical standards. This [draft] ESRS covers the *sustainability matters* that are most relevant to the Oil and Gas sector.
- 2. This [draft] ESRS specifies disclosure and application requirements as follows:
  - (a) additional sector-specific datapoints and/or application requirements related to sector-agnostic disclosure requirements. Additional datapoints are located in the main body of this standard and additional Application Requirements are located in Appendix B. In both cases, they are identified by having in their title the requirement of sector-agnostic ESRS to which they relate (e.g. ESRS2.IRO2.OG).
  - (b) sector-specific Disclosure Requirements are presented in the main body of this [draft] standard and are identified by a progressive numbering (OG 1, OG 2, etc.). Their Application Requirements are presented in Appendix B.
- 3. The requirements classified in this [draft] standard as *policies*, *actions* and *targets* are subject to the materiality provisions of paragraph 33 of ESRS 1. Those classified as *metrics* are subject to the materiality provisions of paragraph 34 of ESRS 1. When assessing additional sector-specific datapoints in this [draft] standard referred to in paragraph 2 (a) above for the condition of paragraph 34 (b) of ESRS 1, the undertaking shall refer to the objective of the relevant Disclosure Requirement in the sector agnostic standards.
- 3.1. The requirements of this standard shall be applied in conjunction with SEC1 that specifies general requirements and disclosure applicable to all sectors.

# Scope of application

- 4. An undertaking is within the scope of application of this [draft] ESRS when *Oil and Gas* is a significant sector according to paragraph 40 (b) and/or (c) of ESRS 2 *General Disclosures*, using the criteria set in AR 13 of ESRS 2 to define a significant sector, as well as according to paragraph [#] of [Draft] SEC 1.
- [draft] ESRS SEC 1 Sector classification defines the aggregation of activities (NACE codes) into sectors for the purposes of applying sector ESRS. The NACE codes that pertain to the Oil and Gas sector are listed in Appendix D to this [draft] ESRS, consistent with [Draft] SEC 1.
- 6. The Oil and Gas sector is composed of upstream, midstream, downstream and service sub-sectors. The undertakings operating within these sub-sectors are referred respectively to as upstream-, downstream-, midstream- and service undertakings, according to the definitions in Appendix A of this [draft] ESRS.
- Oil and Gas upstream sub-sector refer to the undertakings carrying out activities of development, exploration and production of conventional and unconventional oil and gas reserves. Unconventional development includes the mining and extraction of oil sands, shale oil and gas, deep sea exploration and fracking, among other techniques. Activities of developing and/or operating oil and gas fields occur both for on-shore and off-shore reserves. Activities in this sub-sector are classified under NACE B.06.10 Extraction of crude petroleum and B.06.20 Extraction of natural gas.
- 8. Oil and Gas *midstream* sub-sector covers undertakings carrying out activities that include the transportation and storage of natural gas, crude oil, and refined petroleum products. Activities involve gathering, transporting and processing of natural gas as well as transport of crude oil and refined products over land (pipelines, truck and rail) or water (tankers and barges). Includes also storage terminals stocking oil and gas above and below ground. Activities in this sub-sector are classified under NACE H.49.50 Transport via pipeline.
- 9. Oil and Gas *downstream* sub-sector refers to undertakings carrying out activities that include refining (classified under NACE C.19.20) and marketing of petroleum products,

- including operating gas stations and convenience stores (classified under NACE G.46.71 and G.47.30), as well as activities of agents involved in the wholesale of fuels (G.46.12).
- 10. Oil and Gas services sub-sector refers to undertakings that provide support activities and equipment to the Oil and Gas value-chain. Services include activities such as drilling, completing and equipping oil and gas on-shore and off-shore wells, as well as seismic surveying, well cementing and well monitoring. Services are usually provided on a contractual basis, and equipment is either purchased, leased or rented. Activities in this sub-sector are classified under NACE include B.09.10 Support activities for petroleum and natural gas extraction.
- 11. Integrated oil and gas undertakings are involved in activities in more than one of the above sub-sectors, typically across upstream, midstream and downstream activities. Such undertakings may need to report disclosure requirements and data points for each of the activities or apply specific disclosure requirements or data points.
- 12. The reference to NACE activities above is made to demonstrate key activities in the sector. It is noted that undertakings belonging to this sector may carry out a range of additional activities, such as the production of hydrogen, biofuels, or utilisation of carbon capture and storage.

# Presentation of sector-specific disclosures [MOVE TO SEC 1]

13. Disclosures stemming from the [draft] *Oil and Gas* ESRS shall be presented alongside the disclosures required by the corresponding sector-agnostic ESRS and following the provisions prescribed by ESRS 1, paragraph 116.

# Sustainability matters that are most relevant to the sector

- 14. When performing its materiality assessment, the undertaking shall consider the full list of sustainability matters in ESRS 1, paragraph AR 16.
- 15. In addition, the undertaking shall consider the following list of sustainability matters that are considered most relevant to the sector. The list comprises selected matters from ESRS1, paragraph AR 16, complemented with additional sector-specific matters. Appendix F provides an explanation of these matters and how they manifest in the sector.

Topic (standard)	Sub-topic and sub-sub topics	Sector specifications	Applicable sub-sector <sup>1</sup>
Industrial hazards	-	Industrial hazards	UMDS
Closure of assets	-	Closure of assets	UMD
E1 Climate change	Climate change adaptation Climate change mitigation Energy	Locked-in emissions and reserves Climate-transition related research and development Carbon capture and storage	UMDS
		Methane emissions, flaring and venting	UMD
E2 Pollution	Pollution of air Pollution of water Pollution of soil Pollution of living organisms and food resources Substances of concern	Hydraulic fracturing activities Discharges of hydrocarbons, acids, biocides or muds	UMDS

<sup>&</sup>lt;sup>1</sup> Sub-sector applicability referring to upstream (U), midstream (M), downstream (D) and services (S)

Topic (standard)	Sub-topic and sub-sub topics	Sector specifications	Applicable sub-sector <sup>1</sup>
	Substances of very high concern		
E3 Water and marine resources	Water Marine resources Water consumption Water withdrawals Water discharges Water discharges in the oceans	Extraction and processing of oil and gas Processes of hydraulic fracturing and oil sands mining	UMDS
	Extraction and use of marine resources	Exploration of deposits in the ocean	US
E4 Biodiversity and Ecosystems	Direct impact drivers on biodiversity loss Impacts on the state of species Impacts on the extent and conditions of ecosystems Impacts and dependencies on ecosystem services	Land degradation and soil sealing	UMDS
E5 Circular economy	Resource inflows, including resource use Resource outflows related to products and services Waste	Decommissioning of facilities Trading of crude oil and gas Recovery of discharges	UMDS
S1 Own workforce	Working conditions Secure employment Working time Adequate wages Freedom of association, the existence of works councils and the information, consultation and participation rights of workers Collective bargaining, including rate of workers covered by and collective agreements Work-life balance Health and safety  Equal treatment and opportunities for all Gender equality and equal pay for work of equal value Training and skills development Measures against violence and harassment in the workplace Diversity  Other work-related rights Child labour Forced labour Adequate housing Water and sanitation Privacy	Operating round-the-clock or in remote locations Work stoppages	UMDS
S2 – Workers in the value chain	Working conditions Secure employment Working time Adequate wages Freedom of association, the existence of works councils and the information, consultation and participation rights of workers Collective bargaining, including rate of workers covered by and collective agreements Work-life balance Health and safety  Equal treatment and opportunities for all		UMDS

Topic (standard)	Sub-topic and sub-sub topics	Sector specifications	Applicable sub-sector <sup>1</sup>
	Gender equality and equal pay for work of equal value Diversity		
	Other work-related rights Child labour Forced labour Adequate housing Water and sanitation Privacy		
S4 Consumers	Information-related impacts for consumers Access to (quality) information Personal safety of consumers Health and safety Social inclusion of consumers Access to products and services Responsible marketing practices		S
S3 Affected communities	Communities' economic, social and cultural rights* Adequate housing* Adequate food* Water and sanitation* Land-related impacts* Security-related impacts*	Rights of indigenous peoples	UMD
	Communities' civil and political rights* Freedom of expression* Freedom of assembly* Impacts on human rights defenders*		
	Rights of Indigenous peoples* Free, prior and informed consent* Self-determination* Cultural rights*		
G1 Business conduct	Business conduct Management of relationships with suppliers including payment practices	Lobbying Local suppliers spending	UMDS
		Transparency on contracts and licenses	UMD
		State aid and competition	UMD
		Beneficial ownership	UMD
		Oil and gas purchases from states	UMD
		Cybersecurity	UMDS

- 16. For each of the *sustainability matters* in the table above that have been assessed to be material, the undertaking shall disclose its *policies, actions* and *targets*, following:
  - (a) the applicable requirements in this [draft] ESRS in conjunction with those in the topical standards;
  - (b) the *minimum disclosure requirements* set forth at paragraphs 60 to 81 of ESRS2;
  - (c) paragraph 62 of ESRS 2.

# **Disclosure requirements**

#### **ESRS 2 General disclosures**

### ESRS 2.SBM1.OG - Activity indicators

- 17. The undertaking shall provide a breakdown of its net revenue for the reporting period (both in monetary amount and as a percentage of its total revenue) into the following NACEcode activities2:
  - (a) B.06.10 Extraction of crude petroleum
  - B.06.20 Extraction of natural gas (b)
  - G.46.71 Wholesale of solid, liquid and gaseous fuels and related products (c)
  - G.47.30 Retail sale of automotive fuel in specialised stores (d)
  - H.49.50 Transport via pipeline (e)
  - (f) other NACE codes.
- 18. The undertaking shall disclose the following, with amounts referred to the reporting period<sup>3</sup>:
  - Upstream undertaking that extracts crude petroleum shall disclose its total crude oil production, in barrels (bbl), with breakdown into:
    - i. oil sands or other extra heavy oil extracted;
    - ii. shale oil extracted via hydraulic fracturing;
    - iii. crude oil extracted *near* or in biodiversity sensitive areas.
  - (b) Upstream undertaking that extracts natural gas shall disclose its total natural gas production, in normal cubic meters (Nm3), with breakdown into:
    - i. natural gas extracted and processed into Liquified Natural Gas (LNG);
    - ii. shale gas extracted via hydraulic fracturing;
    - iii. natural gas extracted *near* or in biodiversity sensitive areas.
  - Midstream undertaking that distributes oil products shall disclose its total oil (c) products distribution volume, in megalitres (MI);
  - (d) Downstream undertaking that refines products shall disclose its total refined volume, in barrels (bbl), with breakdown into:
    - i. oil sands or other extra heavy oil;
    - ii. shale oil extracted via hydraulic fracturing
  - (e) Downstream undertaking that sells power in retail stations (electric vehicle chargers) shall disclose its total sales of electricity, in megawatt hour (MWh), including:
    - i. the share of electricity with a GHG intensity of less than 100 gCO2e/kWh
- 19. The undertaking shall disclose its volumes of renewable fuels for fuel blending, by including the following indicators expressed in net volume of barrels of oil equivalent (bbl):
  - (a) renewable fuels produced;
  - renewable fuels purchased. (b)
- The undertaking shall provide an estimation of the total addressable market and the share 20. of market for advanced biofuels and associated infrastructure.

<sup>&</sup>lt;sup>2</sup> This disclosure requirement is consistent with the requirements included in EBA Pillar 3 ITS Template 1 Banking book –

Climate change transition risk – Credit quality of exposures by sector, emissions and residual maturity.

This disclosure requirement is consistent with the requirements included in EBA Pillar 3 ITS Template 4 Banking book – Climate change transition risk - Alignment risks

- 21. The undertaking shall disclose its production targets corresponding to the years specified in its GHG emission reduction targets disclosed according to E1-4. This disclosure shall include:
  - (a) production forecast of crude oil (bbl)
  - (b) production forecast of natural gas (Nm3)

### **Cross-topical sector disclosures**

#### OG 1. Mapping of business sites

- 22. The undertaking shall disclose a list of its significant *business sites* connected to material sustainability matters
- 23. The objective of this Disclosure Requirement is to enable an understanding of which significant **business sites** are connected with specific material **sustainability matters**.

#### Metrics

- 24. For each significant business site that is material to:
  - (a) biodiversity, the undertaking shall specify whether the site is located in or *near* the *biodiversity sensitive areas*. If so, the undertaking shall specify the impacts to the affected habitats and *ecosystems* and describe *biodiversity* management and adaptive management activities in place;
  - (b) water and marine resources, the undertaking shall specify whether the site is located in areas of high-water stress.
  - (c) affected communities and/or own workforce, the undertaking shall specify:
    - i. whether the material impacts on the local community are connected to;
      - 1 indigenous peoples;
      - 2. land rights;
      - 3. adequate housing, adequate food, water and sanitation;
      - 4. pollution;
      - 5. hazardous waste storage or disposal;
      - voluntary or involuntary resettlements that have been taking place or are ongoing *near* the site, subject to legal restrictions on the disclosure;
      - ii. whether the site is located in or *near* the *conflict-affected* or *high-risk* areas: and
      - iii. whether the site has implemented works councils, occupational health and safety committees and/or other worker representation bodies to deal with impacts.
- 24.1 For each of the significant **business sites** listed according to the paragraphs above, the undertaking shall include:
  - (a) basic description, including name and a description of the activities and main characteristics of each site;
  - (b) location (NUTS region in the EU, country + region outside EU);
  - (c) type of control: financial or *operational control*;
  - (d) status of site (active; undergoing closure; closed and rehabilitated; or closed and not rehabilitated);

#### OG 2. Oil and gas reserves

- 25. The undertaking shall disclose its proven oil and gas reserves.
- 26. The objective of this Disclosure Requirement is to enable an understanding of an undertaking's **proven reserves**.

#### Metrics

- 27. The undertaking shall disclose the total *proven reserves* of oil (bbl) and gas (Nm³) with a breakdown into proven reserves (percentage):
  - (a) in or *near biodiversity sensitive areas*; and
  - (b) in areas of *high-water stress*.
  - (c) in countries with high-risks of corruption, money laundering and financing of terrorism;
  - (d) in or *near* conflict-affected or high-risk areas;
  - (e) in or *near* the indigenous land.
- 28. The undertaking shall disclose for each line item of paragraph 27 the corresponding countries where it has 15% or more *reserves*.

#### OG 3. Industrial hazards

- 29. The undertaking shall disclose information related to industrial hazards.
- 30. The objective of this Disclosure Requirement is to enable an understanding of the material impacts, risks and opportunities related to industrial hazards connected to the undertaking's operations, as well as how the undertaking manages them.

#### Policies, actions and targets

- 31. When reporting its *policies*, *actions* and *targets* related to industrial hazards according to ESRS E2-1, E2-2 and E2-3, the undertaking shall specify whether and how they address:
  - (a) spills and loss of containment events for hydrocarbons and for other chemicals used in operations:
  - (b) management of *tailings* from oil sands mining and structural safety of tailing ponds or dams;
  - (c) managing impacts from past accidents for which environmental remediation may still be on-going, including any actions that are planned for short, mid and long-term, if applicable.
- 32. When reporting its *policies*, *actions* and *targets* related to *occupational health services* according to ESRS S1-1, S1-4 and S1-5, the undertaking shall describe whether and how they contribute to the minimisation of *impacts and risks* and identification and elimination of hazards; and how it ensures the quality of health services and facilitates workers' access to them.

#### ESRS E2 -Metrics

- 33. The undertaking shall disclose the following *metrics* related to pollution during the reporting period:
  - (a) for *water* pollution:
    - i. total number and volume (in barrels) of *hydrocarbon spills* to water;
    - ii. total number and volume (in m³) of other chemical **spills** to water.
  - (b) for **soil** emissions:
    - i. total number and volume (in barrels) of hydrocarbon spills to soil;
    - ii. total number and volume (in m³) of other chemical *discharges* to soil.
  - (c) for number of spills during transportation:

- i. pipeline incidents and percentage of significant spills;
- ii. rail and truck transportation incidents and percentage of significant spills.
- iii. the total number of significant spills that occurred and volume by substance, as well as how it defines significant spill;
- (d) number of underground storage tanks (UST) for petroleum and hazardous substances:
- (e) number of UST releases requiring clean up.
- 34. The undertaking shall disclose the following *metrics* on the process safety events occurred during the reporting period, as defined by the International Association of Oil & Gas Producers (IOGP), including:
  - (a) number of Tier 1 events reported separately for each major business activity, such as refining or upstream;
  - qualitative descriptions of any significant events that occurred during the reporting year, including the undertakings' response and lessons learned to prevent recurrence;
  - (c) explanation of how the undertaking reviews the assessment and management of process safety risks.

#### ESRS S1 -Metrics

- 35. The undertaking shall disclose the following information if its workforce is exposed to respectively chemical, physical or ergonomic hazards:
  - for chemical hazards, a list of the substances of very high concern (SVHCs), as identified in E2-5, that workers are exposed to in its own operations;
  - (b) a list of key physical or ergonomic hazards that affect its workforce and whether these are included in the undertaking's health and safety management system.
- 36. The undertaking shall disclose the following *metrics* related to health and safety matters as a result of being exposed to chemicals (including to crystalline silica, hydrogen sulphide, hydrocarbons exposure, harmful or carcinogenic hydrocarbon gases and vapours); and provide a breakdown between *employees* and *non-employee* in *own workforce* for (a) and (b) below:
  - (a) the number of work-related fatalities,
  - (b) the number of work-related injuries; and
  - (c) the number of cases of *recordable work-related ill health* for the undertaking's *employees*.
- 37. The undertaking shall disclose the average number of hours of *training* per worker received by its own workforce on health, safety and emergency preparedness, with respect to occupational risks or hazards to which its own workforce is reasonably likely to be exposed. Such information shall be broken down by *employees* and *non-employees*.

#### OG 4. Closure of assets

- 38. The undertaking shall disclose information related to the closure of assets.
- 39. The objective of this Disclosure Requirement is to enable an understanding of the material impacts, risks and opportunities related to closure of assets in the undertaking's operations, as well as how the undertaking manages them and the financial effects associated.

#### Policies, actions and targets

- 40. When reporting its *policies*, *actions* and *targets* related to the closure of assets, the undertaking shall specify whether and how they address the adoption of closure plans (including site restoration plans) for its *business sites*.
- 41. In addition, when reporting its *policies*, *actions* and *targets* related to the closure of assets according to ESRS S1/3-1, S1/3-4 and S1/3-5, the undertaking shall specify how

its *policies*, *actions* and *targets* address impacts on *own workforce* and *affected communities* related to the closure, rehabilitation and/or restoration plans.

#### Metrics

- 42. The undertaking shall list the material **business sites** for which there is no existing or foreseen site rehabilitation plan.
- 43. Where applicable, the undertaking shall disclose whether it developed the post-closure plans in consultation with *affected communities* and *employees*.
- 44. With regard to liabilities for closure and rehabilitation, the undertaking shall disclose per each material business site:
  - (a) the financial liabilities recognised on balance sheet, including:
    - i. undiscounted monetary value of (a) split by time horizon;
    - ii. discount rate used to calculate (a);
  - (b) contingent liabilities, that do not meet the accounting recognition criteria at the reporting date, it expects to incur, including environmental and social post-closure monitoring and aftercare; and
  - (c) whether the business site has been sold to a third party.
- 45. If the relevant information is already disclosed in the financial statements, the undertaking may incorporate by reference to the relevant paragraph in the financial statements.

#### **Environmental disclosures**

# ESRS E1 – OG Climate change

#### Policies, actions and targets

- When reporting its *policies*, *actions* and *targets* related to climate change mitigation according to ESRS E1-2, E1-3, E1-4 and E1-6, the undertaking shall specify whether and how they address:
  - (a) implementation of Leak Detection & Repair (LDAR) programmes;
  - addressing the methane leakages found as a result of the regular monitoring surveys;
  - (c) managing and abatement of methane emissions
  - (d) GHG emissions from Scope 3 category 11 'Use of sold products'.

#### Metrics related to E1-1 transition plan for climate change mitigation

- 47. The undertaking shall provide its CapEx monetary amounts for the reporting period and its future CapEx, disaggregated in short and medium-term, in relation to:
  - (a) development of reserves into production (CapEx to convert **proven reserves** into production), split by:
    - i. undeveloped reserves;
    - ii. developed reserves;
  - (b) development of new infrastructure projects related to *fossil fuel* transportation and distribution;
  - (c) other CapEx, including capitalized research and development initiatives that can address the undertaking's *risks* related to climate change.
- 48. The undertaking shall disclose its:
  - (a) monetary expenditures for the reporting year on research and development of technologies, solutions and business models that can address the undertaking's *risks* related to climate change ('transition-related R&D expenditures');
  - (b) its definition of transition-related R&D expenditures;

- (c) breakdown of its revenues and CapEx pertaining to:
  - i. conventional oil and gas activities;
  - ii. unconventional oil and gas activities;
- (d) CapEx plans (mid-term and long-term) to ensure compatibility with the transition to a sustainable economy and with the limiting of global warming to 1.5°C in line with the Paris Agreement;
- (e) price of oil barrel used on impairment testing;
- (f) provisions recognised on balance sheet for on-going lawsuits related to climate change.
- 49. When disclosing information in accordance with ESRS E1-1 paragraph 16 (d), the undertaking shall disclose a quantitative assessment of *locked-in GHG emissions* related to its *proven reserves*, in MtCO<sub>2</sub>, as well as a breakdown of those emissions by the following categories:
  - (a) undeveloped reserves;
  - (b) developed reserves.

#### Metrics related to E1-6 Gross Scopes 1, 2, 3 and Total GHG emissions

- 50. The undertaking shall disclose a breakdown of (total), for the reporting period:
  - (a) total Scope 1 **GHG emissions** into total CO<sub>2</sub> and methane emissions;
  - (b) **Scope 1 GHG emissions** by type of source, namely:
    - i. stationary combustion, excluding *flaring*;
    - ii. *flaring*;
    - iii. **venting**;
    - iv. fugitive emissions; and
    - v. other.
- 51. The undertaking shall disclose its *GHG emissions* intensity per unit of energy produced during the reporting period:
  - (a) upstream undertakings shall disclose the GHG intensity of its energy production (CO<sub>2</sub>e/unit of energy) <sup>4</sup>;
  - (b) undertakings operating refineries shall disclose their CO<sub>2</sub>/CWT (Complexity Weighted Tonne);
  - (c) undertakings with marketing activities shall disclose GHG intensity of the final energy it sells (CO<sub>2</sub>e/unit of energy).
- 52. The undertaking with integrated operations shall separately report **Scope 3** GHG emissions category, 'Use of sold products emissions' associated with each segment (upstream, midstream, and downstream) of its integrated operations.
- 53. In addition to the information provided following ESRS E1-6, with regards to its methane emissions, the undertaking shall disclose:
  - (a) the geographical location (country) of any significant *flaring* or *venting* emissions;
  - (b) the percentage of routine and non-routine flaring, and the efficiency of combustion.

Metrics related to E1-9 Anticipated financial effects from material physical and transition risks and potential climate-related opportunities

<sup>&</sup>lt;sup>4</sup> This disclosure requirement is consistent with the requirements included in EBA Pillar 3 ITS Template 1 Banking book – Climate change transition risk – Credit quality of exposures by sector, emissions and residual maturity.

- The undertaking shall disclose how it expects the management of climate change-related *risks* and *opportunities* to affect the medium and long-term financial position, performance and development. Limited to plans approved by the relevant governance bodies or delegated management, this shall include:
  - (a) CapEx plans in relation to development of reserves into production (paragraph 47);
  - (b) expected changes in investments (monetary amount) from the current levels for development of low-carbon products and services or adaptation solutions;
  - (c) CapEx plans in relation to development of new infrastructure projects related to fossil fuel transportation and distribution (paragraph 47);
  - (d) potential write-off situations that do not meet the accounting recognition criteria at the balance sheet date; and
  - (e) anticipated early closure of existing assets and consequent effects on useful life of the existing assets.
- 55. If the relevant information is already disclosed in the financial statements, the undertaking may incorporate by reference to the relevant paragraph in the financial statements.

#### OG 5. Carbon capture and storage

- The undertaking shall disclose its activities related to carbon capture and storage technologies.
- 57. The objective of this Disclosure Requirement is to provide an understanding of the extent to which the undertaking is implementing *carbon capture and storage technologies* at scale on its own sources, or providing it as a service to others. It also enables the understanding of how issues related to potential liabilities for transported and stored CO<sub>2</sub> leakage are being dealt and reported following Disclosure Requirement E1-6.

#### Policies, actions and targets

58. When reporting its *policies*, *actions* and *targets* related to climate change mitigation, the undertaking shall specify whether and how they address the risk of non-permanence of carbon capture and storage, including determining and monitoring the leakage and reversal events.

#### Metrics

- 59. The undertaking shall disclose the following metrics (total):
  - (a) CO<sub>2</sub> captured for the reporting period and % from own sources;
  - (b) CO<sub>2</sub> stored at the end of the reporting period; broken down by:
    - i. own sources
    - ii. other sources (CO<sub>2</sub> received or transferred from third parties)
  - (c) CO<sub>2</sub> transported through its pipelines for the reporting period;
  - (d) CO<sub>2</sub> leakage from transport and storage of CO<sub>2</sub> for the reporting period
  - energy use associated with carbon capture and storage activities for the reporting period.

# ESRS E2 - OG Pollution

#### Policies, actions and targets

- When reporting its *policies*, *actions* and *targets* related to pollution, the undertaking shall specify whether and how they address:
  - (a) inspecting and maintaining critical infrastructure (e.g., pipelines and valves);
  - (b) monitoring the quality of the environment around its business sites;

(c) identifying and implementing Best Available Techniques, as established by the Commission Implementing Decision 2014/738/EU and mandated by Directive 2010/75/EU, and in accordance with the indications provided in ESRS E2.

#### Metrics

- 61. The undertaking shall disclose the following metrics:
  - (a) percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used;
  - (b) percentage of hydraulic fracturing sites where ground or **surface water** quality are deteriorated compared to a baseline;
  - (c) volume of *hydraulic fracturing fluid* used in cubic meters during the reporting period.

#### ESRS E3 – OG Water and marine resources

#### Policies, actions and targets

- When reporting its *policies*, *actions* and *targets* related to the water and marine resources, the undertaking shall specify whether and how they address:
  - management of water as a shared resource, particularly in areas of high-water stress and where conflicts between different water uses may emerge;
  - (b) improving the quality of the water discharged.

#### OG 6. Water and marine resources metrics

- 63. The undertaking shall disclose its metrics related to water withdrawals, discharges, and exploration of deposits in the ocean areas.
- 64. The objective of this disclosure requirement is to enable an understanding of the *water withdrawals* and water *discharges* and, for undertakings active in upstream and services sub-sectors, of the extent to which the undertaking is involved in exploration of oil and gas deposits in ocean areas.

#### Metrics - withdrawals and discharges

- 65. The undertaking shall disclose the total volume of *water withdrawals* and *water discharges*, in cubic meters (m3), disaggregated into:
  - (a) surface water;
  - (b) groundwater;
  - (c) other water.
- 66. With regards to the **water withdrawals** disclosed according to paragraph 65 points (a), (b) and (c), the undertaking shall disclose the share (percentage) of water withdrawn from the **areas of high-water stress**.
- 67. The undertaking shall disclose the number of non-compliances in the reporting period with respect to local regulatory or discharge limits and indicate exceeded parameters.

#### Metrics - impacts on local water conditions

68. The undertaking shall disclose in which water basin its operations significantly impact hydrological conditions (e.g. surface water flow, groundwater levels, etc) and what measures are put in place to prevent and mitigate the impacts.

#### Metrics - marine resources-related activity indicators

- 69. The undertaking that is active in the upstream and services sub-sectors shall disclose the following information on the sites located at the Ocean:
  - (a) total number of sites; and
  - (b) total area of the exploitation.

# ESRS E4 - OG Biodiversity and ecosystems

#### Policies, actions and targets

- 70. When reporting its *policies*, *actions* and *targets* related to the biodiversity and ecosystems, the undertaking shall specify whether and how they address:
  - (a) phasing-out existing operations and/or stopping operational investments in or **near biodiversity sensitive areas**;
  - (b) minimising biodiversity and ecosystem impacts from current and future operations in or near biodiversity sensitive areas (including from tailings waste):
  - (c) achieving no net loss or achieve a net gain to biodiversity on **business sites**;
  - (d) managing average direct land-use change of oil and gas wells;
  - (e) managing direct land-use change from oil sands mining activity;
  - (f) managing percentage of impacted area rehabilitated or restored.

#### Metrics

- 71. The undertaking shall disclose significant impacts on *biodiversity* and *ecosystems* change for the reporting period:
  - (a) average *land-use change* per oil and per gas on-shore well site;
  - (b) average sea-use change per oil and per gas off-shore well site;
  - (c) percentage of land-use change area rehabilitated or restored during the reporting period, broken down between on-shore and off-shore operations, and the percentage of land-use change area rehabilitated or restored in *biodiversity* sensitive areas:
  - (d) metrics on state of species.
- 72. The undertaking shall report *metrics* related to material impacts resulting from *biodiversity* and *ecosystem* change in accordance with ESRS E4-5, per each significant business site located in or *near* the *biodiversity sensitive areas* that is listed according to the disclosure OG 1. *Mapping of business sites*.

#### ESRS E5 – OG Circular economy

#### Policies, actions and targets

- 73. When reporting its *policies*, *actions* and *targets* related to the circular economy, the undertaking shall specify whether and how they address:
  - (a) application of circular economy principles to equipment and machinery assets;
  - (b) drilling waste (muds and cuttings, scale, sludges) and tailings;
  - (c) materials resulting from decommissioning activities for offshore and onshore assets, facilities and infrastructure.

#### Metrics

- 74. The undertaking shall disclose the percentage of materials resulting from decommissioning activities for offshore and onshore assets, facilities and infrastructure that are re-used or recycled.
- 75. The undertaking shall also disclose the following volumes referred to the reporting period:
  - (a) volume (in cubic meters) and percent of crude oil and gas that is traded for the following activities:
    - i. petrochemicals;
    - ii. petroleum products;
    - iii. unknown;
  - (b) tonnes oil recovered from oil spills;

- (c) tonnes of drilling waste;
- (d) tonnes of sludges;
- (e) tonnes of tailings;
- (f) tonnes of decommissioned materials.
- 76. In addition to reporting resource outflows according to Disclosure Requirement E5-5 (paragraph 38 (b)), the undertaking shall disclose the amount of machinery and equipment, by weight, that has been diverted from disposal during the reporting period, by **recovery** operation type as stipulated under Disclosure Requirement E5-5 37 (b) i-iii.

#### Social disclosures

#### ESRS S1 - OG Own workforce

#### Policies, actions and targets

- 77. When reporting its *policies, actions* and *targets* related to its *own workforce* according to ESRS S1-1, S1-4, S1-5, the undertaking shall specify whether and how they address:
  - (a) housing facilities for own workers and their access to basic services such as clean water, sanitation and electricity as well as recreational facilities and social spaces;
  - (b) working time and work-life balance when operating round-the-clock or in remote locations.

# OG 7. Work stoppages

- 78. The undertaking shall disclose the number of major work stoppages during the reporting period, including number of employees involved and their length.
- 79. The objective of this Disclosure Requirement is to enable an understanding of the extent of major work stoppages and their effects on the undertaking.

#### Policies, actions and targets

80. When reporting its *actions* according to ESRS S1-4, the undertaking shall describe whether and how taken or agreed actions resolve the major work stoppages.

#### Metrics

- 81. The undertaking shall disclose the number of major work stoppages during the reporting period and, for each of them:
  - (a) the number of employees involved; and
  - (b) the length in days of the stoppage.

#### ESRS S2 - OG Workers in the value chain

#### Policies, actions and targets

82. When reporting its *policies, actions and targets* related to *value chain workers*<sup>\*5</sup> health and safety according to ESRS S2-1, S2-4, S2-5, the undertaking shall specify whether and how they address the applicability of its own health and safety management system to value chain workers and whether and how the undertakings monitors the health and safety metrics for the value chain workers whilst working on site.

<sup>&</sup>lt;sup>5</sup> ESRS S1 *Own Workforce* includes employees and non-employees (individual contractors supplying labour to the undertaking, and people provided by undertakings primarily engaged in 'employment activities' (NACE Code N78). Workers not in scope of *Own Workforce* are considered workers in the value chain (and are defined as individuals performing work in the value chain of the undertaking, regardless of the existence or nature of any contractual relationship with the undertaking).

#### ESRS S3 - OG Affected communities

#### Policies, actions and targets

- 83. When reporting its *policies*, *actions* and *targets* related to the engagement with *indigenous peoples*, including through the tailings facility lifecycle, according to ESRS S3-1, S3-4, S3-5, the undertaking shall describe whether and how they address:
  - (a) engagement with *indigenous peoples* in building knowledge and in decisions that may have a bearing on public safety;
  - (b) land and resources rights:
    - recognition of legitimate tenure rights holders when acquiring, leasing or making other arrangements to use, or restrict the use of land, including involuntary resettlement;
    - ii. process for establishing compensation for loss of assets and other assistance to improve or restore standards of living or livelihoods; and
    - iii. use of the land after the closure of the business site;
  - (c) respecting and protecting *environmental* and *human rights defenders*.
- 84. The undertaking shall disclose the definition of *affected communities* applied when preparing its sustainability statement.

#### Metrics

- 85. The undertaking shall disclose the following *metrics* in relation to seeking *free*, *prior* and *informed consent* (*FPIC*):
  - (a) whether it has been involved during the reporting period in a process of seeking FPIC from *indigenous peoples* for any of its activities;
  - (b) if the undertaking has been involved in such processes, the following information for each of the business sites in question:
    - i. whether the process has been mutually accepted by the undertaking and the affected *indigenous peoples*; and
    - ii. whether an agreement has been reached, and if so, if the agreement is publicly available.
- 86. The undertaking shall disclose the number of *confirmed incidents* during the reporting period related to *environmental* and *human rights defenders*, specifying those that relate to vulnerable groups, including indigenous people.

#### OG 8. Security personnel

- 87. The undertaking shall disclose the percentage of security personnel within *own* workforce that has received *training* about the undertaking's human rights *policies*.
- 88. The objective of this Disclosure Requirement is to enable an understanding of the extent to which the undertaking's security personnel are trained on the undertaking's human rights *policies* and an understanding of how these are respected when engaging with *affected communities*.
- 89. The undertaking shall disclose:
  - the percentage of security personnel that has received training in the undertaking's human rights policies;
  - (b) where applicable, the number of the identified incidents during the reporting period of violations of human rights of affected communities, including indigenous people directly linked to its security personnel and a description of the type of violation.

#### OG 9. Engagement with affected communities and grievance mechanisms

- 90. The undertaking shall disclose *metrics* regarding engagement with *affected communities* and the performance of its grievance mechanisms.
- 91. The objective of this Disclosure Requirement is to enable an understanding of the engagement with *affected communities* and grievance mechanisms on impacts connected to the undertaking.
- 92. The undertaking shall disclose the number of sites with grievance mechanisms or similar conflict resolution procedures for the business sites listed in OG 1, *Mapping of business sites*. If the undertaking does not operate local grievance mechanisms at the business site level as these are managed at group or subsidiary level, it may fulfil this requirement by stating this to be the case. It may disclose its plans to develop grievance mechanisms at business site level, if applicable.
- 93. The undertaking shall disclose the percentage of business sites that have implemented development programs and/or the following:
  - (a) affected community engagement;
  - (b) impact assessments, including:
    - social impact assessments, including gender impact assessments, based on participatory processes;
    - ii. environmental impact assessments and ongoing monitoring.
- 94. In addition, for (b) above, the undertaking shall disclose whether the results of environmental and social impact assessments have been made public.

#### ESRS S4 - OG Consumers

- 95. The undertaking shall disclose:
  - (a) the number of open cases before courts or other competent authorities at the end of the reporting period that concern misleading business-to-consumer commercial practices, in particular misleading environmental claims, or general public communication related to sustainability. This includes the use of sustainability labels that are not based on a certification scheme or established by public authorities;
  - (b) in relation to (a) above, the number of cases resolved during the reporting period and the outcomes of such cases.

#### Governance disclosures

#### ESRS G1 - OG. Business conduct

# Policies, actions and targets

- 96. When reporting its *policies*, *actions* and *targets* related to the management of relationships with suppliers and payment practices according to ESRS G1-2 and G1-6, the undertaking shall specify whether and how they take into account the procurement spending on local suppliers.
- 97. When disclosing according to paragraph 96, the undertaking shall disclose its definition of local suppliers, in case where it deviates from ESRS definition.

#### Metrics

98. When reporting according to ESRS G1-5 paragraph 29, the undertaking shall disclose the amount it spent (as a reporting entity) during the reporting period on *lobbying activities* with contents covering its material *impacts*, *risks* and *opportunities* identified in its *materiality* assessment.

#### OG 11. Transparency about contracts and licenses

- 99. The undertaking shall provide information about the transparency with respect to contracts and licenses with governments setting the terms and conditions for the exploitation of *oil and gas resources*.
- 100. The objective of this Disclosure Requirement is to provide an understanding of the transparency of the undertaking about its contracts concluded and licences received.

#### Metrics

- 101. For any material *contract* or *license* the undertaking shall disclose:
  - (a) whether these are made publicly available and where they can be found;
  - (b) for those contracts or licenses not publicly available, the reason for this and, if applicable, actions taken to publish in the future and the timetable to do so.

#### OG 12. State-aid and competition

- The undertaking shall provide information concerning possible anti-competitive behaviour, the abuse of dominance, or the receipt of state aid during the reporting period.
- 103. The objective of this Disclosure Requirement is to enable an understanding of possible anti-competitive behaviour of the undertaking during the reporting period, as well as any **state aid** received.

#### Metrics

- 104. The disclosure shall include the following information:
  - (a) publicly announced notifications, preliminary investigations, investigations, proceedings or commitments and remedies relating to violations of antitrust and monopoly legislation or the receipt of state-aid where the undertaking was named as a participant by a competent authority; and
  - (b) the main outcomes of legal proceedings against the undertaking concluded during the reporting period, including sanctions, fines, commitments and remedies;
  - (c) the total amount received with respect to **state aid** or financial assistance received from any government during the reporting period on a country-by-country basis.

#### OG 13. Beneficial ownership

- 105. The undertaking shall provide information about its beneficial ownership and how it identifies the beneficial owners of business partners, including joint ventures and suppliers.
- 106. The objective of this Disclosure Requirement is to provide transparency about the undertakings beneficial owner(s) and to how the undertaking manages issues related to the beneficial owners of its business partners, and how these are identified.

#### Policies, actions and targets

107. When reporting its *policies, actions* and *targets* related to the prevention and detection of corruption and bribery according to ESRS G1-1 and G1-3, the undertaking shall specify whether and how they cover guidelines and screening processes regarding politically exposed persons ('PEPs') and beneficial owners of business partners, including joint ventures and suppliers.

#### Metrics

108. The undertaking shall disclose a list of its parent undertaking's beneficial owner(s) (as defined in article 3(6) of Directive (EU) 2015/849).

#### OG 14. Oil and gas purchased from states

- 109. The undertaking shall provide information about oil and gas purchased from states or a third party appointed on the behalf of such states during the reporting period.
- 110. The objective of this disclosure requirement is to enable transparency about oil and gas purchases from *the state* and to provide insights amounts paid to the state under such transactions.

#### Metrics

- 111. For oil and gas purchased during the reporting period from the state or from third parties appointed by the state to sell on their behalf, the undertaking shall disclose:
  - (a) volumes and types of oil and gas purchased from the state;
  - (b) full names of the buying undertaking(s) and the recipient of the payment; and
  - (c) payments made for the purchase.

#### OG 15. Cybersecurity

- 112. The undertaking shall provide information about the management of its *cybersecurity* as well as on cyber incidents during the reporting period.
- 113. The objective of this Disclosure Requirement is to enable an understanding of the undertaking's policies and management of risks regarding *cybersecurity* and to provide transparency on failures related to cybersecurity.

#### Policies, actions and targets

114. When reporting its *policies, actions* and *targets* related to *cybersecurity*, the undertaking shall specify whether and how they address cyber-related incident management for existing operations, projects planned or underway and new locations for business activities.

#### Metrics

- 115. For the incidents during the reporting period that were made public, the undertaking shall disclose:
  - (a) the number of incidents;
  - (b) the number of business sites impacted; and
  - (c) whether this involved restricted or *classified information*.

# **Appendix A: Defined terms**

This appendix is an integral part of this Exposure Draft and has the same authority as the other parts of this Exposure Draft.

Term	Description
Biosphere Reserves recognised within the framework of UNESCO's Man and the Biosphere (MAB) Programme	Biosphere reserves are 'learning places for sustainable development'. They are sites for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity. They are places that provide local solutions to global challenges. Biosphere reserves include terrestrial, marine, and coastal ecosystems. Each site promotes solutions reconciling the conservation of biodiversity with its sustainable use. Biosphere reserves are nominated by national governments and remain under the sovereign jurisdiction of the states where they are located. Biosphere Reserves are designated under the intergovernmental MAB Programme by the Director-General of UNESCO following the decisions of the MAB International Coordinating Council (MAB ICC). Their status is internationally recognized.
Conflict- affected and high-risk areas	Areas in a state of armed conflict or fragile post-conflict as well as areas witnessing weak or non-existent governance and security, such as failed states, and widespread and systematic violations of international law, including human rights abuses.
Decommissi oning activities	1) The action of withdrawing from service the offshore facilities and infrastructure, and the Plugging & Abandonment (P&A) of offshore wells.  2) Decommissioning is the process of ending offshore oil and gas operations at an offshore platform and returning the ocean and seafloor to its pre-lease condition.
Developed reserves	Reserves that are expected to be recovered from existing wells and facilities. Developed reserves may be further sub-classified as producing or non-producing. Developed producing reserves are the developed reserves that are expected to be recovered from completion intervals that are open and producing at the effective date. Improved recovery reserves are considered producing only after the improved recovery project is in operation. Developed non-producing reserves are the developed reserves that are either shut-in or behind-pipe.
Downstrea m undertaking (s)	Undertakings active in refining and marketing of petroleum products, including operation of gas stations and convenience stores (NACE codes C.19.20, G.46.71 and G.47.30). As such, the <i>downstream undertakings</i> referred to in this standard shall be understood differently from downstream value chain actors (e.g. customers) used to describe business relationships.
Drilling waste	Extractive residues commonly generated during exploration and production of oil and gas, both onshore and offshore. The main types of drilling waste include drilling cuttings, drilling fluids and interfacial mixtures. Drill cuttings are particles of crushed rock sand, silt and clay produced by the action of the rotary drill bit as it penetrates into the earth. Drilling fluids, also referred to as 'muds', and are mixtures of fine-grained solids, inorganic salts, and organic compounds dissolved or dispersed/suspended in in a 'continuous phase' (the base fluid) which may be water (water-based muds) or an organic liquid (non-aqueous muds, which can be oil-based or synthetic-based). Interfacial mixtures are more commonly referred to as 'slops'. Slop water or slop mud are produced when the drilling fluid becomes contaminated with water; or an aqueous fluid (such as a completion brine) becomes contaminated with NADF or reservoir hydrocarbons.

Environmen tal defenders	The term "environmental defenders" refers to individuals and groups who, in their personal or professional capacity and in a peaceful manner, strive to protect and promote human rights relating to the environment, including water, air, land, flora and fauna. Land and environmental rights are interlinked and are often inseparable. As a result, the two broad categories of defenders advocating for the environment and for land rights are often characterized as "land and environmental rights defenders", "environmental rights defenders", or just "environmental activists".
Fugitive emissions	Gas leakages directly into the atmosphere through valves and seals, hoses and flexible piping, as well as evaporation from hydrocarbon liquids and from cuttings. Fugitive emissions can never be fully eliminated, but can be minimised by use of good / appropriate materials, equipment and design, as well as through good operating procedures.
High-risk area(s)	High-risk areas are those where there is a high risk of conflict or of widespread or serious abuses as defined in paragraph 1 of Annex II of the OECD Guidance. Such areas are often characterized by political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure, widespread violence, and violations of national or international law.
Hydraulic fracturing fluid	During hydraulic fracturing, hydraulic fracturing fluid is injected down an oil or gas production well and into the targeted rock formation under pressures great enough to fracture the oil- and gas-bearing rock. The hydraulic fracturing fluid usually carries proppant (typically sand) into the newly created fractures to keep the fractures "propped" open. After hydraulic fracturing, oil, gas, and other fluids flow through the fractures and up the production well to the surface, where they are collected and managed.
Hydrocarbo n spill(s)	A liquid petroleum hydrocarbon discharged, accidentally or intentionally, that floats on the surface of water bodies as a discrete mass and is carried by the wind, currents and tides. Hydrocarbon spills can be partially controlled by chemical dispersion, combustion, mechanical containment and adsorption. They have destructive effects on coastal ecosystems. (See also accidental and non-accidental release).
Human right defenders	The term "human rights defenders" refers to individuals, groups and organs of society that promote and protect universally recognised human rights and fundamental freedoms. Human rights defenders seek the promotion and protection of civil and political rights as well as the promotion, protection and realisation of economic, social and cultural rights. Human rights defenders also promote and protect the rights of members of groups such as indigenous communities. The definition does not include those individuals or groups who commit or propagate violence.
Midstream undertaking (s)	Undertakings active in the transportation and storage of natural gas, crude oil and refined petroleum products (NACE code H.49.50)
Migrant worker	A person who is to be engaged, is engaged or has been engaged in a remunerated activity in a state of which they are not nationals.
Occupation al health services	Services entrusted with essentially preventive functions, and responsible for advising the employer, the workers, and their representatives in the undertaking, on the requirements for establishing and maintaining a safe and healthy work environment, which will facilitate optimal physical and mental

health in relation to work and the adaptation of work to the capabilities of workers in the light of their state of physical and mental health  Oil and gas resources  "Undiscovered, technically recoverable resources" estimated to exist bas geologic knowledge and theory.  Other water  Surface water that is not fresh water, and water from other sources  A worker who, for a limited period, carries out his work in the territory of a Member State other than the State in which he normally works.  Probable reserves (or P2) are those additional reserves which are less lil be recovered than proven reserves (<90%) but more certain to be recover than possible reserves (>50%).  Water (brine) obtained from the hydrocarbon bearing formation strata during the extraction of oil and gas. This can include formation water, injection wand any chemicals added downhole or during the oil/ water separation process.	sed on  kely to ered
Probable reserves         Probable reserves         Produced water         Water (brine) obtained from the hydrocarbon bearing formation strata durand any chemicals added downhole or during the oil/ water separation process.	kely to ered
Posted workers  A worker who, for a limited period, carries out his work in the territory of a Member State other than the State in which he normally works.  Probable reserves (or P2) are those additional reserves which are less lil be recovered than proven reserves (<90%) but more certain to be recover than possible reserves (>50%).  Produced water  Water (brine) obtained from the hydrocarbon bearing formation strata during the extraction of oil and gas. This can include formation water, injection water and any chemicals added downhole or during the oil/ water separation process.	kely to ered
Workers         Member State other than the State in which he normally works.           Probable reserves         Probable reserves (or P2) are those additional reserves which are less libe recovered than proven reserves (<90%) but more certain to be recovered than possible reserves (>50%).           Produced water         Water (brine) obtained from the hydrocarbon bearing formation strata during the extraction of oil and gas. This can include formation water, injection water and any chemicals added downhole or during the oil/ water separation process.	kely to ered
be recovered than proven reserves (<90%) but more certain to be recovered than possible reserves (>50%).  Produced water  Water (brine) obtained from the hydrocarbon bearing formation strata due the extraction of oil and gas. This can include formation water, injection water and any chemicals added downhole or during the oil/ water separation process.	ered ring
the extraction of oil and gas. This can include formation water, injection vand any chemicals added downhole or during the oil/ water separation process.	
<b>Proven</b> reserves  Proven reserves (or P1) are the amount of oil or natural resources contain under a piece of land with a 90% or greater probability of profitable extractions.	
Reserves Part of a mineral deposit which could be economically and legally extract produced at the time of the reserve determination.	ed or
Scale and sludges  1) Thick, soft, wet mud or a similar viscous mixture of liquid and solid components. 2) Sludge is composed of dissolved solids which precipitate from product water as its temperature and pressure change. Sludge generally consists oily, loose material often containing silica compounds, but may also containing amounts of barium.  Scales are normally found on the inside of piping and tubing. American Petroleum Institute found that the highest concentrations of radioactivity the scale in wellhead piping and in production piping near the wellhead. Concentrations were as high as tens of thousands of picocuries per gram However, the largest volumes of scale occur in three areas: Water lines associated with separators, (separate gas from the oil and water; Heater treaters (divide the oil and water phases); Gas dehydrators, where scale deposits as thick as four inches may accumulate.	s of ain are in n.
Service undertaking (s)  Undertakings active in support activities and provision of equipment to oil gas value chain (NACE code B.09.10)	l and
Accidental releases of hazardous substances such as chemicals, oils, fur and other substances. They can affect water, soil and air quality as well a biodiversity and human health.	
Surface water, including rainwater, water from wetlands, rivers and lakes Water that is naturally occurring water on the Earth's surface in ice sheet caps, glaciers, icebergs, bogs, ponds, lakes, rivers and streams, and has concentration of dissolved solids.	s, ice
Tailing(s)  Oil sands tailings are a mixture of water, sand, fine silts, clay, residual bit and lighter hydrocarbons, inorganic salts and water-soluble organic compounds.	umen
<b>Throughput</b> The amount of product that moves through a particular facility during a giperiod of time.	iven

# Tier (1/2/3) safety events

A Tier 1 process safety event is defined by API RP 754 as an unplanned or uncontrolled loss of primary containment (LOPC) release of any material, including non-toxic and non-flammable materials, such as steam, hot condensate, nitrogen or compressed air, from a process that results in one or more of the following consequences:

A Tier 2 process safety event is defined similarly but with less severity than the Tier 1 criteria above. See API RP 754 and IOGP's Report 456 for detailed definitions and guidance.

Tier 3 "challenges to safety systems." 1.1 The entity shall refer to the terms, definitions, and guidance from the ANSI/API RP-754 (Section 7.2). Tier 3 indicators may alternatively be referred to as "near miss" events or "high learning value" events.

Tier 4 indicators are metrics developed by the entity–specific to its facilities, operations, and safety priorities– that measure leading, proactive measures to maintain and improve safety and manage risk.

# Transmissio n pipelines

Pipelines used to transport crude oil and natural gas from their respective gathering systems to refining, processing, or storage facilities. Transmission pipelines also transport refined petroleum products and natural gas to customers, for use or for further distribution. With very few exceptions, transmission pipelines are dedicated to the transportation of crude oil, refined petroleum products, or natural gas. Transmission pipeline systems include all of the equipment and facilities necessary to transport the products. This includes the pipe, valves, pumps or compressors, breakout tanks, storage tanks, refining and processing facilities and other equipment and facilities. Transmission pipelines are constructed from steel pipe and can range in size from several inches to several feet in diameter. Depending on the product being transported, transmission pipeline systems can be designed to operate from relatively low pressures to high pressures. They can range in length from hundreds of feet to hundreds of miles.

# Undergroun d storage tank(s)

An Underground Storage Tank (UST) system is a tank (or a combination of tanks) and connected underground piping having at least 10 percent of their combined volume underground. The tank system includes the tank, underground connected piping, underground ancillary equipment, and any containment system.

# Undevelope d reserves

Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

- (i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.
- (ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time.
- (iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, or by other evidence using reliable technology establishing reasonable certainty.

# Upstream undertaking (s)

Undertakings active in development, exploration and production of conventional and unconventional oil and gas reserves (NACE codes B.06.10 and B.06.20). As such, the *upstream undertakings* referred to in this standard shall be understood differently from upstream value chain actors (e.g. suppliers) used to describe business relationships.

# **Appendix B: Application Requirements**

This Appendix is an integral part of the proposed [draft] ESRS Oil and Gas and has the same authority as the other parts of the Standard.

#### Sustainability matters included in the materiality assessment

- AR 1. This sector standard introduce two cross-cutting sustainability matters which play a role in the undertaking's materiality assessment:
  - (a) industrial hazards, which refer to incidents and accidents oil and gas operations are highly prone to and which can result in significant impacts on environmental resources (extreme contamination of air, water and soil, habitat degradation, harm to species), surrounding communities and infrastructures (e.g., damage to economic activities and food resources), workers (e.g., injuries, ill health, fatalities), as well as undertaking's assets, leading to critical financial repercussions. Some examples of industrial hazards include well blowout and explosions due to the manipulation of volatile and combustible chemicals, unintended leaks and failed containment of hazardous and highly reactive substances (e.g., hydrocarbons, hydraulic fracturing fluids) spills. The establishment of a system and a culture of safety, including through emergency preparedness and control, may help undertakings to reduce the risk of such hazards.
  - (b) closure of assets, which refer to ceasing of the operations, whenever site-specific extractive operations such as those in oil and gas are subject to closure due to finite resources and/or economic viability. At the end-of-life of an operation, the expectation is that the site will be restored to pre-development ecological functionality and setting or at least stabilized to prevent persistent environmental and social impact associated with geomorphological changes, increased contamination, and deteriorated safety conditions. Decommissioning planning, including financial allocation, is critical to ensure detrimental effects to environmental and social values are fully addressed and mitigated. As such, corporate financial disclosure for decommissioning is essential to demonstrate public accountability for businesses in the extractives sector. The term asset in this definition does not relate to resources that would meet the financial accounting definition of asset.
- AR 2. Whenever a cross-cutting sustainability matter is identified, the likelihood of occurrence for number of other sustainability matters is increasing, as illustrated in the table below. Upon the conclusion of materiality of cross-cutting sustainability matters, the undertaking shall evaluate the connected sustainability matters.

Industrial hazards	Closure of assets
Methane	Methane
Pollution of air	Pollution of air
Pollution of water	Pollution of water
Pollution of soil	Pollution of soil
Pollution of living organisms and food	Water discharges in water bodies
resources	Water discharges in the oceans
Substances of concern	Habitat degradation and intensity of
Substances of very high concern	pressure on marine resources
Direct impact drivers on biodiversity loss	Waste
Impacts on the state of species	Secure employment
Impacts on the extent and conditions of	Social dialogue and collective bargaining
ecosystems	Freedom of association, the existence of
Impacts and dependencies on ecosystem	work councils and the information,
services	consultation and participation rights of
Waste	workers
Secure employment for own workforce and	Training and skills development
workers in the value chain	Health and safety

Health and safety for own workforce and	Communities' economic, social and cultural
workers in the value chain	rights
Social dialogue and collective bargaining	Communities' civil and political rights
Training and skills development for own	Communities civil and political rights
workforce and workers in the value chain	
Measures against violence and harassment	
in the workplace	
Communities' economic, social and cultural	
rights	

# Application Requirements related to ESRS 2 General disclosures

#### ESRS 2 GOV-4

AR 3. If the undertaking carries out activities concerned by the *OECD Due Diligence Guidance* for *Meaningful Stakeholder Engagement in the Extractive Sector*, it may disclose a mapping of the information provided in its sustainability statement to this OECD Guidance. This may be presented in a table in a similar form to the table below.

Core elements	Paragraphs in the sustainability statements
OECD Guidelines for Multinational Enterprises	
Establish strong company management system	
Identify and assess risk in the supply chain	
Design and implement a strategy to respond to identified risks	
Carry out independent third-party audit of supply chain due	
diligence at identified points in the supply chain.	
Report on supply chain due diligence	

#### ESRS 2.SBM.1.OG – Activity indicators

- AR 4. For the purpose of this Disclosure Requirement paragraph 17, net revenue shall be understood as being aligned with the Taxonomy Regulation (EU) 2020/852 including any delegated regulations related to climate change mitigation and climate change adaptation.
- AR 5. When disclosing under paragraph 19:
  - (a) the renewable fuels produced shall include biofuel, cellulosic biofuel, ethanol, advanced biofuels, and other renewable fuels for use in fuel blending. The undertaking may additionally provide further breakdowns of its total production capacity into specific categories, such as advanced biofuel, cellulosic biofuel and others:
  - (b) net volumes of renewable fuels are understood as volumes produced or purchased for use in fuel blending, less amounts sold to independent third parties.
- AR 6. When disclosing according to paragraph 20:
  - (a) the advanced biofuels shall be understood as biofuels other than ethanol derived from corn starch (kernels) and having 50% lower lifecycle greenhouse gas emissions relative to gasoline;
  - (b) the total addressable market for advanced biofuels and associated infrastructure is understood as potential revenue, should the entity capture 100% of the market share of the product category. The market share shall be calculated as revenue from the advanced biofuels and associated infrastructure, divided by the total addressable market. When disclosing its estimations on the total addressable market, the undertaking may additionally provide a projection of growth for this market, as well as the targeted market share that the undertaking plans to address.

#### ESRS 2 SBM-3

AR 7. The undertaking may consider disclosing which impacts on *affected communities* are specific to vulnerable groups such as children, women, *migrant workers*, *indigenous peoples* or any other vulnerable group, as applicable.

#### ESRS 2 IRO-1

- AR 8. When the undertaking is conducting its materiality assessment of impacts, risks and opportunities in relation to *affected communities* (ESRS S3), it may take into account how it addresses impacts and risks related to free, prior, and informed consent from *indigenous peoples* in countries without regulation or processes in place.
- AR 9. It may disclose whether, as part of its materiality assessment, it performs a risk assessment for entering a new country of operations before the subscription of the contract.
- AR 10. When conducting its materiality assessment on topics related to ESRS E2, E3 and E4, the undertaking may consider the first three phases of LEAP approach, also known as:
  - (a) Phase 1. Locate where in the undertaking's own operations and along its upstream and downstream value chain the interface with nature takes place
  - (b) Phase 2: evaluate the dependencies and impacts
  - (c) Phase 3: assess the material risks and opportunities

# **Application Requirements related to cross-topic disclosures**

#### OG 1. Mapping of business sites

- AR 11. The mapping of business sites concerned by this disclosure includes both those that are under the undertaking's financial control and those under *operational control*. The site may be significant for the undertaking in terms of revenue or material actual impacts, or material potential negative impacts. For example, site may be significant for the undertaking if it meets one or both of the following criteria:
  - (a) the site is among its major sites;
  - (b) is the most impactful business sites of the undertaking connected with material actual impacts or material potential negative impacts on people and environment.
- AR 12. For the purposes of this disclosure, the following are business sites:
  - (a) concessioned areas for oil and gas production currently under development or in production;
  - (b) concessioned areas for oil sands with tailing dams or ponds;
  - (c) LNG & Natural gas processing facilities;
  - (d) refinery assets; or
  - (e) oil and gas transmission pipelines.
- AR 13. Transmission pipelines (mentioned above) mean pipelines used to transport crude oil and natural gas from their respective gathering systems to refining, processing, or storage facilities. Transmission pipelines also transport refined petroleum products and natural gas to customers, for use or for further distribution. With very few exceptions, transmission pipelines are dedicated to the transportation of crude oil, refined petroleum products, or natural gas. Transmission pipeline systems include all of the equipment and facilities necessary to transport the products. This includes the pipe, valves, pumps or compressors, breakout tanks, storage tanks, refining and processing facilities and other equipment and facilities. Transmission pipelines are constructed from steel pipe and can range in size from several inches to several feet in diameter. Depending on the product being transported, transmission pipeline systems can be designed to operate from relatively low pressures to high pressures. They can range in length from hundreds of meters to hundreds of kilometres.

#### Operational control

- AR 14. The undertaking shall determine on the basis of the specific facts and circumstances which asset is under *operational control*. The following are examples of transactions where the undertaking has *operational control*:
  - (a) the asset is operated by the company, whether for itself, or under a contractual obligation to other owners or participants in the asset (for example, in a joint venture or other such commercial arrangement); or
  - (b) the asset is owned by a joint arrangement (or equivalent commercial arrangement), and operated by a partner, in respect of which the company can determine management and board level operational decisions of the joint venture.
- AR 15. Examples include mobile assets, such as vehicles or ships. The information about material impacts, *risks* and *opportunities* includes these mobile assets when owned and operated by the reporting undertaking. However, if owned by others and leased or chartered to the undertaking, the following shall be considered:
  - (a) vehicles, aircraft or rail rolling stock not owned by the undertaking but contractually dedicated to exclusive business use by the undertaking are generally included as operated assets for reporting. This excludes 'spot' charters that are available for regular business use by other parties;
  - (b) when considering marine vessels, an asset would typically be included when the reporting unit holds the International Safety Management Code Document of Compliance (DOC).
- AR 16. In relation to paragraph 63 of ESRS 1, operations and assets under "operational control" shall not be considered as part of the upstream or downstream value chain, but as part of own operations.
- AR 17. The undertaking may consider disclosing the list of business sites and infrastructure in the following format:

No.	Site name	Description	Location	Type of	Status of site	[]
		of activities		control		
1	[site name 1]	[]	[NUTS region]	Operational	Active	
2	[site name 2]	[]	[country]	Financial	Undergoing closure	
3	[site name 3]	[]	[]	[]	Closed and rehabilitated	
4	[site name]	[]			Closed and not rehabilitated	

#### OG 2. Oil and gas reserves

- AR 18. When disclosing under the Disclosure Requirement *OG 2. Oil and gas reserves*, paragraph 27 and 28, the undertaking shall calculate the reserves as the amount of reserves located in the indicated area, divided by the total amount of proven reserves.
- AR 19. With reference to paragraph 27 (c), the countries identified as high-risk are:
  - (a) countries or jurisdictions identified in the Financial Action Task Force 'black list'; or
  - (b) countries that have the lowest rankings in Transparency International Corruption Perception Index
- AR 20. When disclosing on its reserves, the undertaking shall follow guidance published by the U.S. Securities and Exchange Commission (SEC) in its Oil and Gas Reporting Modernization (Regulation S-X Section §210.4-10) for the classifying of reserves as proven and probable.
- AR 21. The undertaking may consider disclosing the percentage of net probable reserves broken down as indicated in the paragraphs of this disclosure. In such case, the percent of proven reserves and probable reserves are to be calculated and reported separately.

AR 22. The undertaking may present the information in tabular format, as per the following table:

	Oil (million bbl)	Gas (million Nm3)	Countries
TOTAL, of which %			
in countries with high risks of corruption, money laundering and financing of terrorism	%	%	Country A, Country B, Country C
in or near conflict-affected or high-risk areas;	%	%	Country D, Country B,
in or near indigenous land;	%	%	Country E, Country F, Country C
in or near biodiversity sensitive areas; and	%	%	Country A, Country B, Country C
in areas of high-water stress.	%	%	Country D, Country B

- AR 23. With reference to the reserves located in or near conflict-affected or high-risk areas, referred to in paragraph ## 27 (d):
  - (a) Reserves shall be considered to be in or near a conflict-affected or high-risk **area** if they are located in the same country as an armed conflict;
  - (b) If the undertaking can demonstrate that the armed conflict is contained to a region, state, or designated area that is not proximate to its reserves, then it may exclude these from the scope of disclosure;
  - (c) If reserves are located in a country, region, or state adjacent to an armed conflict and/or can be reasonably expected to be operationally impacted by the conflict, then these reserves shall be included in the scope of disclosure.
- AR 24. With reference to the reserves located in or **near** indigenous land, referred to in paragraph 27 (e), indigenous lands are considered those occupied or otherwise used by **indigenous peoples**.
- AR 25. With reference to the reserves in or *near* the *biodiversity sensitive areas*, referred to in paragraph 27 (a), the undertaking may calculate the percentage of reserves biodiversity sensitive areas by proportionality, this is, by computing of their proven reserves in a concession area and determining the percentage which overlaps with a biodiversity sensitive area and allocating reserves based on that percentage. The undertaking may also clarify to what extent proven reserves are developed or undeveloped, given the potential differential impact risk between them.
- AR 26. With reference to the reserves in areas at high water stress, referred to in paragraph 27 (b), the undertaking may calculate the % of reserves by proportionality, this is, by computing of their proven reserves in a concession area and determining the percentage which overlaps with areas of high-water stress and allocating reserves based on that percentage.

#### OG 3. Industrial hazards

AR 27. When disclosing information about its industrial hazards in accordance with this Disclosure Requirement, the undertaking shall follow the provisions in the Seveso-III-

- Directive (2012/18/EU)<sup>6</sup>, aiming at the prevention of major accidents involving dangerous substances.
- AR 28. For the purpose of disclosure in paragraph 33 (c), a pipeline incident is an event in a pipeline for which the operator must make a report to the authority. Main causes include corrosion, aging pipelines, natural disasters, and excavation.
- AR 29. Considering the requirements in paragraph 35, the undertaking may consider following spills to be significant:
  - (a) hydrocarbon releases of more than one barrel (bbl) that reached the environment;
  - (b) highly volatile liquid releases of five barrels or more, or other liquid releases of 50 barrels or more;
  - (c) liquid releases resulting in an unintentional fire or explosion
  - (d) spills included in the undertaking's financial statements, for example due to resulting liabilities.
  - (e) spills recorded as significant spills by the undertaking
- AR 30. When disclosing metrics on the process safety events according to paragraph 34, the undertaking may also:
  - (a) provide the number of Tier 2 process safety events, reported separately for each major business activity, such as refining or upstream;
  - (b) describe how it assesses, monitors and reviews the process safety and well control risk control barriers;
  - (c) describe its approach and application of Tier 3 and 4 *metrics*;
  - (d) describe how it incorporates cultural and human factors into process safety, including leadership, risk awareness and **employee** development;
  - (e) state any commitments or *targets* it has that relate to process safety and report your progress;
  - (f) report process safety event rates;
  - (g) report number of Level 1, 2 and 3 well control *incidents* and separately describe any Level 1 incidents.
- AR 31. In the case of workers who perform tasks in offshore platforms, injuries or fatalities occurred while commuting to these (e.g., by helicopter) are considered to be work-related.
- AR 32. In relation with the health and safety management system, the undertaking may disclose whether it takes into consideration specific differences for female workers (for example, in the equipment provided, or whether **occupational health services** and facilities take into consideration specific health-related concerns, etc.). The undertaking may specify whether sexual harassment is considered among psychosocial factors.

#### OG 4. Closure of assets

#### Policies, actions and targets

- AR 33. For the purpose of this disclosure, the undertaking shall consider a closure plan as a plan addressing the aspects of decommissioning, rehabilitation or restoration and long-term monitoring of the site-level pollution. Closure plans also address aspects related to landscaping and *biodiversity* rehabilitation or restoration.
- AR 34. When disclosing its *policies*, *actions* and *targets*, the undertaking may disclose the following related to closure of *business sites*:
  - (a) how it helps **employees** and **non-employee** workers manage the adverse impacts arising from the closure of its business site(s);

<sup>&</sup>lt;sup>6</sup> Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances.

- (b) the labour transition plans in place to help workers manage the transition to a postclosure phase of operations (e.g., redeployment, assistance with redeployment, resettlement, and redundancy payments, *training* and skills programmes);
- (c) the collaborative efforts, projects and programs that are set up to manage the socio-economic impact of closure and restoration programs and disclose these;
- (d) how it engages with worker and other *stakeholders* in informing the closure plans, as well as notice periods regarding closure.
- AR 35. When disclosing its processes to remediate negative impacts following ESRS S3-3, the undertaking may take account of how it engages with local communities and other relevant *stakeholders* on its closure and post-closure planning and implementation, including post- exploitation *land-use*, to limit the actual and potential adverse impacts (e.g. unemployment, people moving out affecting the liveability of remaining supporting activities such as local shops, schools).
- AR 36. The undertaking may disclose whether, in relation to closure and post-closure, it has addressed potential access-barriers faced by *affected communities*, particularly by vulnerable groups, to reach the channels in place (e.g., understandable language, technological resources, accessible to children).
- AR 37. When disclosing on the financial liabilities for closure and rehabilitation according to paragraph 44, the undertaking shall also consider the costs necessary to address:
  - adverse impacts of closure of the business site on own workers, non-employee workers and their communities (Disclosure Requirement related to ESRS 2 SBM-3); and
  - (b) the restoration of material impacts to *biodiversity* and *ecosystems* around the closed business site (Disclosure Requirement related to ESRS E4-2).
- AR 38. At the end of their commercial use, **business sites** such as oil and gas fields and other facilities are expected to be decommissioned or closed by the undertaking in an orderly way. Closure and rehabilitation of oil and gas fields can include:
  - (a) removal and final disposal of hazardous substances and chemicals;
  - (b) capping or plugging abandoned wells;
  - (c) dismantling structures and reusing, *recycling* or disposing materials;
  - (d) waste management;
  - (e) surface water and groundwater quality issues resulting from spills and leaks; and
  - restoration of lands to a condition or economic value equivalent to the predevelopment state;
  - (g) closing oil sands mining sites also involves managing tailings ponds.
- AR 39. The operational life of **business sites** may last for several decades, therefore a regularly updated restoration plan is essential. For this reason, the undertaking may update its closure and restoration plan annually and such disclosure shall be considered by the undertaking.
- AR 40. Site restoration plans should address the following objectives:
  - (a) the long-term stability and sustainability of the landforms, soils and hydrology of the site:
  - (b) the partial or full repair of **ecosystem** capacity to provide habitats for biota and services for people;
  - (c) the prevention of pollution of the surrounding environment.
- AR 41. The undertaking may disclose if it uses any recognised standard as a basis for site rehabilitation or restoration plans on what concerns *biodiversity* impacts.

### Application Requirements related to environmental disclosures

#### ESRS E1 - OG Climate change

#### Policies, actions, targets

- AR 42. When reporting the information required under Disclosure Requirement E1-4 on *targets* related to *climate change mitigation*, the undertaking may disclose the mandatory legislation the goals and targets are aligned with or contribute to.
- AR 43. 'Leak detection and repair programme' or 'LDAR programme' means a programme dedicated to identify and detect sources of methane leaks and other unintentional methane emissions, and to repair or replace the relevant components. When reporting according to ESRS E1-2, E1-3 and E1-4, when a LDAR survey programme exits, the undertaking may provide a brief description of it including: the frequency of the monitoring; the different methane monitoring technologies, e.g. remote sensing techniques or estimation method.

#### Metrics

- AR 44. When reporting according to this sectors' Disclosure Requirement ESRS E1-OG Climate change related to ESRS E1-1, the undertaking may further detail these categories to align OpEx and CapEx plans with the EU Taxonomy.
- AR 45. CapEx referred to in paragraph 47 means Capital Expenditure approved by relevant governance bodies and, in accordance with Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021, it shall cover costs that are accounted based on:
  - (a) IAS 16 Property, Plant and Equipment, paragraphs 73, (e), point (i) and point (iii);
  - (b) IAS 38 Intangible Assets, paragraph 118, (e), point (i);
  - (c) IAS 40 Investment Property, paragraphs 76, points (a) and (b) (for the fair value model):
  - (d) IAS 40 Investment Property, paragraph 79(d), points (i) and (ii) (for the cost model);
  - (e) IFRS 16 Leases, paragraph 53, point (h).
- AR 46. When disclosing the potential *locked-in GHG emissions* according to sector agnostic Disclosure Requirement E1-1 paragraph 16 (d) from the undertaking's assets and products, the undertaking shall consider the emissions potential of proven (P1) reserves of their oil and gas assets and shall calculate this potential considering the recommendations of the World Resource Institute<sup>8</sup>.
- AR 47. With reference to paragraph 59. the undertaking may disclose also locked-in emissions of probable (P2) reserves.
- AR 48. When disclosing the breakdowns of revenues and CapEx invested into conventional and unconventional oil and gas activities according to paragraph 48 (c):
  - (a) conventional oil and gas activities shall be understood as activities associated with exploitation of geological formations that concentrate hydrocarbons into discrete accumulations or pools, which typically have high porosity and permeability which allows for simple extraction of the resource. Examples of conventional oil and gas activities include crude oil and natural gas extraction by using, among others, vertical well bore or draglines.
  - (b) unconventional oil and gas activities are associated with formations that are diffusely distributed with low porosity and permeability and/or where recovering the resources requires application of specialised techniques. Examples of unconventional oil and gas include offshore production, oil sands, shale gas, tight gas and coal bed methane extraction using techniques such as steam-assisted

<sup>&</sup>lt;sup>7</sup> Regulation (EU) 2024/1787 of the European Parliament and of the Council of 13 June 2024 on the reduction of methane emissions in the energy sector and amending Regulation (EU) 2019/942

<sup>&</sup>lt;sup>8</sup> A recommended methodology for estimating and reporting the potential greenhouse gas emissions from fossil fuel reserves, World Resource Institute, 2016

- gravity drainage or hydraulic fracking, as well as artic oil and gas or ultradeepwater extraction.
- AR 49. When reporting according to ESRS E1-6, the **service undertaking** shall consider its **Scope 3 category** 13 'Leased assets', i.e. the emissions associated with the use of the assets they have leased to undertakings in the oil and gas value chain.
- AR 50. When reporting its **Scope 3 category** 11, 'Use of sold products emissions' in accordance with ESRS E1-6, AR 46, the undertaking shall consider:
  - (a) for upstream undertakings, only the physical trading of crude oil and gas products and exclude financial trading volumes. Physical trading is all trading of crude oil and gas that actually involves the physical delivery of the product. An upstream undertaking may report on financial trading of crude oil and gas but in this case, it shall present it separately;
  - (b) for *midstream undertakings*, the CO<sub>2</sub> emissions of the throughput through the facilities under their financial or operational control during the reporting period, even if the oil and gas products are not owned by the undertaking;
  - (c) for downstream undertakings, the physical sales of finished products. In case they integrate both (refining NACE) and (marketing NACE) activities, the volume to consider shall be the largest throughput of the two activities;
  - (d) for **service undertakings**, the emissions associated with the use of the products they have sold.
- AR 51. When disclosing its methane emissions, the undertaking may consider the *Guidelines for Methane emissions target setting* issued by GIE (Gas Infrastructure Europe), IOGP (International Association of Oil & Gas Producers) and MARCOGAZ (Technical association of the European gas industry)<sup>9</sup>.
- AR 52. When disclosing its methane emissions, the undertaking may disclose if it participates in any partnership programme on methane management, such as the Oil & Gas Methane Partnership 2.0<sup>10</sup>.
- AR 53. For purposes of calculating the percentage of routine flaring referred to in paragraph 53 (a), the undertaking shall consider the total number of hours of routine flaring and divide them by the number of hours in a year (8760). The percentage of non-routine flaring is calculated in a similar way. Routine flaring occurs on a regular basis due to the normal operations of a facility. Non-routine flaring is distinguished from routine flaring by the magnitude, frequency and duration of flaring events, being characterized by infrequent occurrence, high-emission rates, short-event durations and usually the result of operating conditions outside normal steady-state plant process or equipment operations. While non-routine flaring is considered unavoidable due to safety of operations, routine flaring can be eliminated entirely. More information can be found in the World Bank Global Gas Flaring Reduction Partnership<sup>11</sup>.
- AR 54. When reporting according to E1-9, the undertaking shall consider among as a source of financial effects, the financial risks associated with a narrower access to finance as a consequence to investors and lenders adopting investment policies to limit or phase-out the exposure to fossil fuel.

#### OG 5. Carbon capture and storage

- AR 55. In case of leakages in transport and storage of CO<sub>2</sub>, the undertaking shall account for the respective emissions in accordance with the provision of ESRS E1-6.
- AR 56. When disclosing the total CO<sub>2</sub> storage from own sources according to paragraph 59 (b) (i), the undertaking may disclose the origin of CO<sub>2</sub> stored, by providing a breakdown of this total CO<sub>2</sub> storage into:
  - a) percentage of CO<sub>2</sub> emissions captured from the stack

<sup>&</sup>lt;sup>9</sup> <u>Guidelines for Methane emissions target setting, GIE, IOGP, MARCOGAZ</u>

<sup>&</sup>lt;sup>10</sup> The Oil & Gas Methane Partnership 2.0

<sup>&</sup>lt;sup>11</sup> World Bank Global Gas Flaring Reduction Partnership

- b) percentage of CO<sub>2</sub> emissions captured from the well
- c) percentage of CO<sub>2</sub> derived from Direct Air Capture (DAC)
- d) other
- AR 57. When disclosing the total CO<sub>2</sub> storage from other sources (CO<sub>2</sub> received or transferred from third parties) according to paragraph 59 (b) (ii), the undertaking may additionally disclose the origin of CO<sub>2</sub> stored.

# ESRS E2 - OG Pollution

- AR 58. When disclosing on its policies, actions and targets related to pollution, the undertaking may disclose the technologies it uses to manage and monitor its impact on air quality, such as technologies that remove or treat combustion emissions in operations or fuel products.
- AR 59. When disclosing its policies, actions and targets on monitoring the quality of the environment around its business sites, the undertaking may disclose the percentage of business sites that have an environmental monitoring plan in operation.
- AR 60. When reporting its policies, actions and targets on pipeline inspections, the undertaking may disclose the percentage of natural gas pipelines inspected and the percentage of hazardous liquid pipelines inspected.
- AR 61. When disclosing under E2-6 Anticipated financial effects from pollution-related impacts, risks and opportunities, the undertaking shall consider the *financial effects* of *incidents* with environmental impacts related to pollution, such as spills, leakages, uncontrolled discharges or other operational safety events.
- AR 62. *Financial effects* include the liabilities from pollution events, namely the costs of remedial action, as defined in Directive 2004/35/CE on environmental liability with regard to the prevention and remedying of environmental damage.
- AR 63. Undertakings shall refer to the Commission Notice 2021/C 118/01<sup>12</sup> for further guidance on environmental damage liabilities.

# ESRS E3 - OG Water and marine resources

# Policies, actions and targets

- AR 64. When disclosing the information required in E3-1 on *policies* and E3-2 *targets* related to water and marine sources, the undertakings may include the following:
  - (a) a description of how the organization interacts with water, including how and where water is withdrawn, consumed, and *discharged*, and the water-related impacts the organization has caused or contributed to, or that are directly linked to its operations, products, or services by its *business relationships* (e.g., impacts caused by runoff);
  - (b) a description of the approach used to identify water-related impacts, including the scope of assessments, their timeframe, and any tools or methodologies used;
  - (c) a description of how water-related impacts are addressed, including how the organization works with stakeholders to steward water as a shared resource, and how it engages with suppliers or customers with significant water-related impacts;
  - (d) an explanation of the process for setting any water-related goals and targets that are part of the organization's approach to managing water and effluents, and how they relate to public policy and the local context of each area of high-water stress;
  - (e) an overview of water use across the undertaking's upstream and downstream value chain:

<sup>&</sup>lt;sup>12</sup> Guidelines providing a common understanding of the term 'environmental damage' as defined in Article 2 of Directive 2004/35/EC of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage (2021/C 118/01)

- (f) a list of specific catchments where the organization causes significant waterrelated impacts.
- AR 65. When compiling the information about areas of high-water stress, the undertaking shall use publicly available and credible tools and methodologies for assessing water risk in an area.

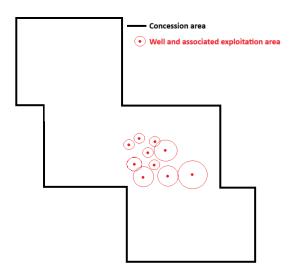
# OG 6. Water and marine resources metrics

#### Metrics

AR 66. When disclosing its water withdrawals and discharges according to paragraph 65, the undertaking may follow the table shown below:

Water withdrawals	Total water withdrawn (m3)	% withdrawn from areas of high-water stress	Total water discharged (m3)
Surface water			
Groundwater			
Other water			

- AR 67. When disclosing the indicators of *water discharge*, the undertaking may disclose the internal standards it may have established for the management of water discharge-related impacts. The undertaking may give a description of any minimum standards set for the quality of effluent *discharge*, and how these minimum standards were determined, including:
  - (a) how standards for facilities operating in locations with no local discharge requirements were determined;
  - (b) any internally developed water quality standards or guidelines;
  - (c) any sector-specific standards considered;
  - (d) whether the profile of the receiving waterbody was considered.
- AR 68. The undertaking shall disclose volume in thousands of cubic meters (10<sup>3</sup>m<sup>3</sup>) of **produced** water and process wastewater discharged.
- AR 69. When disclosing in accordance with paragraph 69 on marine activity indicators, the undertaking shall report considering that:
  - (d) The Ocean refers to all ocean basins (the Pacific, Atlantic, Indian, Arctic and Southern Ocean basins) and seas which form one body of water, connected throughout the world. The seas are generally smaller than the ocean, and are located at the point where the ocean meets land and are often enclosed by land.
  - (e) When determining the total area under exploitation, the undertaking shall consider the active sites and their wells, with executed or planned drilling, considering the drainage radius for vertical wells and the maximum horizontal radius for directional and horizontal drills, for purposes of calculating the total area of exploitation (see picture below, for illustration purposes).



# ESRS E4 - OG Biodiversity and ecosystems

# Policies, actions and targets

AR 70. When disclosing its *policies, actions* and *targets* implemented to manage its material impacts, *risks* and *opportunities* related to *biodiversity* and *ecosystems*, the upstream undertakings and midstream undertakings may include how the undertaking applies the mitigation hierarchy and international biodiversity standards in its operational planning, from early concept through to decommissioning.

#### Metrics

- AR 71. When disclosing according to paragraph 71 (b) with regards to the average sea-use change per oil and per gas off-shore well site, sea-use change refers to measures and activities altering the use of marine areas, for example, coastal development, offshore aquaculture, mariculture, oil and gas exploration, and bottom trawling.
- AR 72. When disclosing its average land-use change and sea-use change according to paragraph 71 (a) and (b), the undertaking shall understand the required averages as a mean metrics across all sites. For example, average land-use change per oil well site shall be calculated by dividing the land-use change (numerator) by total number of well sites (denominator).
- AR 73. When disclosing according to paragraph 71 (d), the undertaking may disclose, as a metric on state of species, the total number of IUCN Red list species and national conservation list species with habitats in areas affected by the operations of the undertaking, by level of extinction risk
- AR 74. When disclosing according to the sector agnostic Disclosure Requirement E4-5, the undertaking shall consider impacts deriving from both direct impact on land and sea use; indirect impacts; as well as impacts form industrial hazards (e.g. spills, other risk events).
- AR 75. The undertaking may separately identify reserves in areas with additional ecological, *biodiversity*, or conservation designations such as those listed by the A-Z Guide of Areas of Biodiversity Importance prepared by the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC).
- AR 76. The undertaking may provide information about reserves that are located in *protected areas* or endangered species habitat, but present low risk to *biodiversity* or *ecosystem services*; the undertaking may provide similar information for reserves located in areas with no official designation of high biodiversity value but that present high biodiversity or ecosystem services risks.
- AR 77. The undertaking may also disclose:
  - number of projects contributing to forestry maintenance, educational activities, research and development to reduce *biodiversity* impact and land use, conservation measures (planting trees);

- development and sales of new products that conform with new regulations on biodiversity;
- (c) number of *incidents* (fines, suspension or rejection of permission or license, litigations) due to violation of laws and regulations related to biodiversity.
- AR 78. Reserves are considered to be in areas of protected conservation status if they are located within:
  - (a) International Union for Conservation of Nature (IUCN) Protected Areas (categories I-VI)
  - (b) Ramsar Wetlands of International Importance
  - (c) UNESCO World Heritage Sites
  - (d) **Biosphere Reserves** recognized within the framework of UNESCO's Man and the Biosphere (MAB) Programme
  - (e) Natura 2000 sites
  - (f) Sites that meet the definition of the *protected area*.
  - (g) the areas that are listed in the World Database of Protected Areas (WDPA) and mapped on Protected Planet
- AR 79. Reserves are considered to be in endangered species habitat if they are in or near areas where IUCN Red List of Threatened Species that are classified as Critically Endangered (CR) or Endangered (EN) are extant.
- AR 80. A species is considered extant in an area if it is a resident, present during breeding or non-breeding season, or if it makes use of the area for passage.
- AR 81. For the purposes of disclosure, "passage" is defined as all areas of land or water that a migratory species inhabits, stays in temporarily, crosses or overflies at any time on its normal migration route.

# ESRS E5 – OG Circular economy

# Policies, actions and targets

- AR 82. When describing the undertakings' efforts to increase the life and efficiency of their equipment and machinery assets under E5-5 Resource outflows, the undertaking may disclose information such as:
  - (a) whether assets were procured following *circular economy* approaches such as: leasing, procuring second-hand or remanufactured assets and whether new assets have been designed for longevity, reusability, repairability, etc.
  - (b) whether the undertaking has agreements or *policies* in place for the end-of-use of existing equipment that would enable recirculation in practice.

# Metrics

AR 83. The information related to the volumes shall reflect the total weight of the outflow material in its original state, without data modification, such as reporting on a 'dry weight' basis.

# **Application Requirements related to social disclosures**

# ESRS S1 – OG Own workforce

- AR 84. In relation to **work-life balance** information, round-the-clock working measures could relate to long or split shifts for continuous operations and multi-day assignments for remoted locations.
- AR 85. When disclosing its *policies*, *actions* and *targets* on housing facilities and access to basic services, the undertaking may specify whether it takes into consideration the specific needs of female workers.

- AR 86. When disclosing according to ESRS S1-13, the undertaking may disclose whether the *trainings* it provides to its *own workforce* include prevention against sexual harassment and *discrimination*.
- AR 87. When disclosing according to the requirements of ESRS S1 Own workforce, the undertaking may refer to the table below for examples of policies, actions and targets:

Social and	Non-exhaustive list of	Examples of	Examples of	Examples of targets:
human rights	factors to consider in	policies:	actions:	
matters:	Materiality Assessment:			
Secure employment	% of posted workers in own workforce % of migrant workers in own workforce	Policies on the use of non-employee workers in the workforce; Policies on the use of migrant workers in the workforce	Reducing the percentage of non-employee workers in its own workforce; Ensuring that the migrant workers are engaged on equivalent terms and conditions to non-migrant workers	Reducing the percentage of non-employee workers in its own workforce; Ensuring that the migrant workers are engaged on equivalent terms and conditions to non-migrant workers
Working time	% of workers regularly working multi-day away-from-home assignments % of workers regularly working evening shifts % of workers regularly working night shifts % of workers regularly working on Saturdays and/or Sundays	Policies on advance notice of scheduling, multi-day away-from- home assignments, and evening, night and weekend work	Increased percentage of workers with regular schedules Increased advance notice of scheduling Reducing percentage of multi- day away-from- home assignments, and evening, night and weekend work	Increased percentage of workers with regular schedules Increased advance notice of scheduling Reducing percentage of multi-day away-from-home assignments, and evening, night and weekend work
Adequate wages	Allowances for housing for away-from-home assignments	Policies for housing allowances	Increasing housing allowances	Adequate housing allowances
Freedom of association/ collective bargaining including the rate of workers covered by collective agreements	% of <b>posted workers</b> in own workforce	% of workers affected by major work stoppages	Percentage of workers affected by major work stoppages	Percentage of workers affected by major work stoppages

AR 88. In relation to the downstream sub-sector, the undertaking shall consider the specific impacts to which workers in gas stations and in convenience stores that are attached to gas stations are exposed. This includes, among others, security and protection from harassment or sexual assault, especially during night shifts, and the use of young workers on long hours.

# OG 7. Work stoppages

- AR 89. The information on the number of persons in *own workforce* involved in a major work stoppage, an absolute number of persons or FTE is to be used. A major work stoppage is defined as a work stoppage involving 100 or more *employees* and/ or *non-employee* workers in *own workforce*.
- AR 90. The scope of this Disclosure Requirement includes work stoppages due to disputes between labour and management, including strikes and lockouts. The work stoppages may also arise due to community protests.

AR 91. The information required by paragraph 81 (b) shall be the sum of the products of the number of persons in its *own workforce* (FTE) involved and the total duration (in workdays) of each major work stoppage. Where exact figures are not available, the undertaking may provide an estimate according to ESRS 1.

# ESRS S3 – OG Affected communities

AR 92. The geographical definition of 'affected' can include the community surrounding operations, a region within a country, or a country. The undertaking may adopt an approach that is consistent with its definition of local, when disclosing the information related to ESRS S3 Affected communities.

# Policies, actions and targets

- AR 93. When disclosing its *policies, actions* and *targets* related to land acquisition and involuntary resettlement, the undertaking may disclose if it has considered or addressed potential negative impacts that are specific to women and children; health and livelihood.
- AR 94. The undertaking may disclose the following information in relation to *actions* related to land and resources rights
  - (a) lessons learned to prevent recurrence; and
  - (b) its regular review process of the assessment and management of process safety risks.
- AR 95. In addition, the undertaking may disclose the approach taken in recognising the legitimate tenure rights holders when acquiring, leasing or making other arrangements to use, or restrict the use of, land as well as to providing remediation following involuntary resettlement either through monetary or asset compensation.

# Taking action on material impacts, risks and opportunities

- AR 96. In relation to its disclosure on the *policies, actions* and *targets* related to respecting and protecting *environmental* and *human rights defenders*, the undertaking may disclose whether it adopts a zero-tolerance approach for attacks against *environmental* and *human rights defenders*, and not to sue for defamation or to participate in strategic lawsuits against public participation (SLAPP).
- AR 97. The undertaking shall consider the impacts on *affected communities* that stem from the undertaking's impacts on *biodiversity* when disclosing the *actions* that are planned or underway to address negative impacts on these affected communities; and, where applicable, it shall consider the principles in the Nagoya Protocol and the Montreal Agreement<sup>13</sup>. The undertaking may refer to how the actions that are planned or underway are aligned to these frameworks.
- AR 98. When disclosing the *policies* in relation to engagement with *environmental* and *human rights defenders*, the undertaking may take account of its processes for engaging with *environmental* and *human rights defenders* as part of its due diligence processes, including on managing allegations of retaliations, threats and direct/indirect attacks (physical and legal including all forms of judicial harassment) against defenders. The undertaking may disclose if it has any initiatives or projects underway to support the actions or causes human rights and environmental defenders strive for.
- AR 99. The undertaking may disclose if it has any initiatives or projects underway to support the actions or causes human rights and environmental defenders strive for.

# Metrics

- AR 100. The definition to be used to identify a 'confirmed incident' is in conformity with the definition provided in Annex 2 of the Delegated Regulation and only refers to incidents that have been found to be substantiated.
- AR 101. When calculating the number of *confirmed incidents* in paragraph 86, the undertaking shall consider official sources of such as policy reports or other reports issued by governmental organisations. The undertaking shall also consider information raised by

<sup>&</sup>lt;sup>13</sup> Refers to the COP 15 Convention on Biological Diversity of December 2022, not yet ratified.

- legitimate representatives or credible proxies from *indigenous people*, as well as reports issued by local, national and international NGOs. The undertaking shall not consider unofficial sources e.g. social media, when preparing this disclosure.
- AR 102. When disclosing the number of *confirmed incidents* broken down by vulnerable groups, the undertaking may disclose whether the threats and attacks identified are different depending on the particular group affected (e.g., sexual violence on female *environmental* and *human rights defenders*).

# OG 8. Security personnel

- AR 103. Oil and gas companies may operate in conflict zones or other high-risk areas where the use of security personnel and the training of security personnel in the undertaking's human rights *policies* may be more relevant.
- AR 104. The undertaking may disclose the content of the *trainings* offered (e.g., differentiate between trainings related to security issues and *trainings* on human rights policies) and also if it addresses the protection of vulnerable and marginalised groups, especially women, children and indigenous populations.
- AR 105. Human rights *training* for security personnel aims at ensuring human rights respect with regards to their interaction with *stakeholders* including affected communities, ensuring a non-discriminatory approach to women and minorities, not exacerbating social conflict, how to collaborate with public and private security providers, processes relating to detention of persons, undue use of force which includes ensuring that force is used only when necessary. The undertaking may include how practices apply to business partners, such as contractors, sub-contractors, *suppliers*, and joint venture partners. Where practices do not apply to business partners, the undertaking may discuss factors that prevent the application of such practices.
- AR 106. When describing the procedures and management of public or private security providers, the undertaking shall refer to *training* provided on its policies or international standards focused on safeguarding human rights as well as guidelines on the use of physical force and reporting procedures. It may also refer to screening and assessment processes, cost reimbursement and the use of company facilities.
- AR 107. The undertaking may describe the frequency of the *training* (whether it is provided once a year, every two years, as applicable).
- AR 108. The undertaking may disclose whether the undertaking has performed internal audits and/or has been audited or certified by an external party in relation to compliance of its security personnel with its own human rights *policies* when engaging with *affected communities*.
- AR 109. The undertaking may disclose information on its processes of tendering and contracting with security providers. It may also disclose whether compliance with the undertaking's human rights *policies* by the private security are part of the process.

# OG 9. Engagement with affected communities and grievance mechanisms

- AR 110. In its disclosure prepared under ESRS S3-2, the undertaking may consider the following:
  - (a) its due diligence practices and procedures with respect to indigenous rights of communities in which it operates or intends to operate, specifically: upholding internationally recognised rights of *indigenous peoples*, including but not limited to those recognised by the UN Declaration on the Rights of Indigenous Peoples, and the ILO Convention No. 169;
  - (b) the use of *free, prior, and informed consent (FPIC)* (or consultation) processes as per the United Nations Declaration on the Rights of Indigenous Peoples
- AR 111. If the undertaking has an operation site in or near the *indigenous peoples* lands as listed in OG 1 *Mapping of business sites*, the undertaking may disclose:
  - (a) its interactions with *indigenous peoples*, including but not limited to means of communication, language used, frequency;

- (b) where applicable, the co-ownership programs developed for *indigenous peoples* and local communities. This includes equity shares acquired by communities and their value:
- (c) the most recent examples of involvement in the process of seeking free, prior, and informed consent from indigenous peoples to any of the undertakings' activities, and whether an agreement has been reached and if it is publicly available.
- AR 112. The undertaking may list the vulnerable groups, including any *indigenous peoples*, that it has identified within local communities and the approach to engaging with those vulnerable groups, including:
  - (a) how it seeks to ensure meaningful engagement; and
  - (b) how it seeks to ensure safe and equitable gender participations, namely how it seeks to ensure indigenous women can participate safely and equitably.
- AR 113. The undertaking may describe any collective or individual rights that it has identified that are of particular concern for local communities (including vulnerable groups).

#### Metrics

- AR 114. Social impact assessment includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (*policies*, programs, plans, projects) and any social change processes invoked by those interventions.
- AR 115. Environmental impact assessment includes the processes of identifying, describing and assessing in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors: (a) population and human health; (b) *biodiversity*, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; (c) land, soil, water, air and climate; (d) material assets, cultural heritage and the landscape; (e) the interaction between the factors referred to in points (a) to (d). The effects on these factors shall include the expected effects deriving from the vulnerability of the project to *risks* of major accidents and/or disasters that are relevant to the project concerned.

# Application Requirements related to governance disclosures

# ESRS G1 - OG Business conduct

AR 116. When providing information about its policy the undertaking may include details on how suppliers are categorised. Such categorisation may be based on geographic location, such as proximity to the site.

# OG 12. State-aid and competition

- AR 117. When determining the total of **state aid**, or of financial assistance, received from any government, the undertaking shall include the following:
  - (a) tax relief and tax credits;
  - (b) subsidies;
  - (c) funds received through the Just Transition Mechanism of the EU;
  - investment grants, research and development grants, and other relevant types of grants;
  - (e) awards;
  - (f) royalty holidays;
  - (g) financial assistance from Export Credit Agencies (ECAs);
  - (h) financial incentives; and
  - (i) other financial benefits received or receivable from any government for any operation.



# Appendix C. Application Requirements supporting the assessment of materiality of the information

This appendix is an integral part of [draft] ESRS Oil and Gas and has the same authority as the other parts of this Standard.

When determining according to paragraph 34 (b) of ESRS 1 whether a given disclosure requirement or a datapoint in this [draft] ESRS (see reference to number of paragraphs in the table below) is reported or omitted for a material matter, the undertaking shall consider the factors presented in this table:

Disclosure Requirement	Factors to consider in informing materiality assessment	Datapoint to include or omit (Paragraph)
ESRS 2.SBM.1.OG – Activity indicators	Operations in upstream, midstream or downstream	18
	Production of renewable fuels	19, 20
	Production of crude oil or natural gas	21
OG 2. Oil and gas reserves	Existence of oil and gas reserves, upstream operations	27
OG 3. Industrial hazards	Actual or potential occurrence of accidental releases of hazardous substances from operations	33
	Health and safety incidents (i.e., fatalities, injuries, and ill-health cases) amongst its workforce	35, 36, 37
OG 4. Closure of assets	The existence of ongoing or planned closure of assets / sites.	42, 43, 44
	Absence of planning related to site rehabilitation	42
	Ongoing or anticipated decommissioning of facilities	44
	Activities in development, exploration and production of oil and gas reserves	47
	Actual or anticipated investment in solutions with high climate impact	47 (c), 48 (a)
	Presence of locked-in emissions	49
ESRS E1 – OG Climate change	Operation of refineries and marketing of petroleum products Integrated oil and gas operations	51 (b), 51 (c)
	Methane emissions and GHG emissions related to them	50
	Actual or anticipated flaring or venting activities, operation of wells, compressor stations or pipelines, actual and potential methane leakages	53 (a)
	Energy production and energy sales	51 (a)

Disclosure Requirement	Factors to consider in informing materiality assessment	Datapoint to include or omit (Paragraph)
	Energy sales	51 (c)
	Refinery operations	51 (b)
OG 5. Carbon capture and storage	Utilisation of carbon capture and storage technologies	59
ESRS E2 – OG Pollution	Actual or anticipated hydraulic fracturing activities	61
OG 6 – Water and marine resources metrics	Ongoing or anticipated activities with actual or potential impact on local water and land resources	65, 66, 67, 68
OG 6 – Water and marine resources metrics	Activities related to exploration of deposits in the ocean areas	69
ESRS E4 – OG Biodiversity and ecosystems	Ongoing or anticipated activities resulting in disturbed land or sea	71-72
	Ongoing or anticipated decommissioning of facilities	74, 75 (f)
ESRS E5 – OG. Circular economy	Crude oil and gas trading	75 (a)
	Recovery of oil spills	75 (b)
	Presence of oil and gas specific waste streams paragraphs	75 (c) – (e)
ESRS E5 – OG. Circular economy	Operation of heavy machinery and equipment	76
OG 7 – Work stoppages	Work stoppages involving more than 100 workers of the undertaking, that have taken place during the year.	95 (a), 95 (b)
	Proximity of operations/sites to indigenous peoples, including tailings facilities	98
ESRS S3 – OG Affected communities	Ongoing process of seeking FPIC from indigenous peoples and agreements reached	98
	Prevalence of attacks on environmental and human rights defenders and the number of incidents when engaging with environmental and human rights defenders	86
OG 8 – Security personnel	Use of private, government security personnel to safeguard the undertaking's operations/site and consideration to be given to conflict-affected or high-risk areas  Human rights' training performed on security personnel	101 (a)
	Cases of human rights' violations connected with the security personnel	101 (b)
	Incidents of violations of human rights of indigenous people directly linked to the undertaking's security personnel	101 (c)

Disclosure Requirement	Factors to consider in informing materiality assessment	Datapoint to include or omit (Paragraph)
OG 9 – Engagement with affected communities and grievance mechanisms	Existence and implementation of grievance mechanisms and engagement activities with the affected communities at business site level	106
	Percentage of operational sites that have been subject to environmental and social impact	105 (b), 106
ESRS S4 -OG Consumers	Existence of misleading commercial practices' cases being reported in the period	95 (a), 95 (b)
5505 64 06	Proximity of suppliers to the operational site	96
ESRS G1 – OG. Business conduct	Participation in advocacy and lobbying and associated expenditures aiming to exert influence on government policies	98
OG 11. Transparency about contracts and licenses	Presence of government contracts and licences that are subject to public consultation	101
OG 12. State aid and competition	Ongoing activities in jurisdictions where instances of cartels, monopolistic practices, and related abuse of such positions have been documented	104 (a)
	Legal actions relating to violations of antitrust and monopoly legislation.	104 (b)
	Eligible to or recipient of state aid or of financial assistance	104 (c)
OG 13. Beneficial ownership	Identification of individuals that classify as politically exposed persons ('PEPs')	107
	Availability of the identity of the natural person who has a control ownership interest in - and/or can exercise control over a legal entity used by the business partners, including joint ventures and suppliers	108
OG 14. Oil and gas purchased from states	Ongoing transactions generating revenue directly for states or through third parties acting on behalf of states	111
OG 15. Cybersecurity	Dependency on technology to manage the facility operations	114
	Managing restricted or classified information on digital platforms	115 (c)



# Appendix D: List of datapoints in accordance with EU law

This Appendix is an integral part of the Exposure Draft ESRS *Oil and Gas* and has the same authority as the main body of the [draft] Exposure Draft.

The table below illustrates the datapoints that emanate from other EU legislation. These are to be reported irrespective of the outcome of the materiality assessment.

Disclosure	Pillar 3 reference
Requirement	
ESRS 2.SBM1.OG -	Article 449a Capital Requirements Regulation – CRR – Template 1:
Activity indicators	Banking book - Climate change transition risk: Credit quality of
	exposures by sector, emissions and residual maturity
	Article 449a CRR - Template 1: Banking book - Climate change
	transition risk: Credit quality of exposures by sector, emissions and
	residual maturity
	Template 3 - Banking book - Climate change transition risk -
	Alignment risks
	Article 449a CRR – Template 3 – Banking book – Climate change
	transition risk – Alignment risks
	Article 449a CRR – Template 3 – Banking book – Climate change
	transition risk – Alignment risks

# **Appendix E: NACE codes**

This Appendix set the list of NACE codes that are covered by this [draft] sector ESRS. All undertakings for which one or more of these NACE codes represent a significant sector according to paragraphs 40 (a) and (b) of ESRS 2, shall report according to this [draft] sector ESRS.

- C.19.20 Manufacture of refined petroleum products
- G.46.71 Wholesale of solid, liquid and gaseous fuels and related products
- G.46.12 Activities of agents involved in the wholesale of fuels
- G.47.30 Retail sale of automotive fuel in specialised stores
- H.49.50 Transport via pipeline
- B.06.10 Extraction of crude petroleum
- B.06.20 Extraction of natural gas
- B.09.10 Support activities for petroleum and natural gas extraction.

This appendix an integral part of this Exposure Draft and has the same authority as the other parts of the Exposure Draft ESRS *Oil and Gas*.

# Appendix F: Description of sustainability matters

This Appendix complements the [draft] ESRS Oil and Gas and presents a non-binding description of the sustainability matters that are most relevant for undertakings in the Oil and Gas sector.

For the sustainability matters that are also listed in paragraph AR16 of ESRS 1, this Appendix provides a description of how such matters materialise in this specific sector.

#### **Industrial hazards**

Oil and gas operations are highly prone to incidents and accidents with disastrous impacts on environmental resources (extreme contamination of air, water and soil, habitat degradation, harm to species), surrounding communities and infrastructures (e.g., damage to economic activities and food resources), workers (e.g., injuries, ill health, fatalities), as well as undertaking's assets, leading to critical financial repercussions. Some examples of industrial hazards include well blowout and explosions due to the manipulation of volatile and combustible chemicals, unintended leaks and failed containment of hazardous and highly reactive substances (e.g., hydrocarbons, hydraulic fracturing fluids) spills. The establishment of a system and a culture of safety, including through emergency preparedness and control, may help undertakings to reduce the risk of such hazards.

#### Closure of assets

Site-specific extractive operations such as those in oil and gas are subject to closure due to finite resources and/or economic viability. At the end-of-life of an operation, the expectation is that the site will be restored to pre-development ecological functionality and setting or at least stabilized to prevent persistent environmental and social impact associated with geomorphological changes, increased contamination, and deteriorated safety conditions. Decommissioning planning, including financial allocation, is critical to ensure detrimental effects to environmental and social values are fully addressed and mitigated. As such, corporate financial disclosure for decommissioning is essential to demonstrate public accountability for businesses in the extractives sector. The term asset in this definition does not relate to resources that would meet the financial accounting definition of asset.

# E1: Climate change

# Climate change adaptation

The sector is exposed to a range of risks from the current and future climate variability. Those risks may include, for example, reduced window of time for tundra travel due to the permafrost melting, increased lighting strikes in northern latitudes, coastal erosion leading to degradation of barriers, increased storms and wave loading on offshore facilities, changes in precipitation patterns affecting the water management or flooding, and reduced certainty regarding efficiency of equipment. Thorough risk evaluation and assessment as well as working towards resilience across the whole value chain, including surrounding communities and infrastructure, are essential to manage risk and opportunities related to the matters of climate change adaptation.

# Climate change mitigation

Sector's GHG emissions are major contributor to climate change. Depending on the activity specifics, actions to reduce emissions may cover areas of fugitive methane emissions, flaring of natural gas, but also mitigation of other GHG releases such as N2O, HFCs, PFCs, SF or NF. Climate transition efforts for the sector extend across the whole value chain, including the Scope 3 emissions. Change to a low-carbon economy is linked to multiple aspects of climate change mitigation (emissions management, long-term decline in demand, presence of stranded assets) and investments in renewable energy, technologies to remove CO<sub>2</sub> from the atmosphere, as well as implementation of nature-based solutions, such as reforestation, afforestation, coastal and wetland restoration.

# Energy

The oil and gas sector represents an energy-intensive industry and hence energy efficiency and savings are essential to the industry's operations. Examples of energy-consuming equipment used within the sector may include boilers, fired heaters, waste incinerators, gas turbines, gas engines and diesel engines. On-site generation of non-fossil energy, new sources of electric power or other non-combustion energy sources can represent an opportunity for managing the energy transition. The energy efficiency and energy consumption factors remain critical matters to be managed to minimise negative climate impacts of the industry.

#### Methane

Methane is one of the main greenhouse gases responsible for climate change. It can be emitted from different activities within oil and gas industry. Examples of operations that can lead to its releases are operations of wells, oil and gas platforms, transmission through the pipelines, storage, refining or distribution activities. The methane emissions can be originating from the intentional methane burning (flaring), intentional releases directly into the air (venting) or fugitive emissions. Overall methane emissions in the industry can be significantly reduced thanks to the use of available technologies, as well as dedicated leak detection and repairs programmes.

#### **E2: Pollution**

#### Pollution of air

Oil and gas operations (intentional, e.g., venting and flaring; or unintentional, e.g., fugitive emissions form incidents or evaporation losses) contribute to air emissions that decrease air quality at local and regional levels, resulting in negative impacts that acutely affect human health (e.g., neurological damage), flora (e.g., impairing photosynthesis) and fauna or cultural heritage sites. While the impacts associated with greenhouse gas emissions are taken in account as a part of the climate mitigation topic, other significant air pollutants from regular oil and gas sectoral activities are relevant to consider and may include (but are not limited to) SOx, NOx, H<sub>2</sub>S, VOCs (contributing to the formation of smog, and containing air toxics), PM. Monitoring and management of the impacts related to the air quality, as well as an innovative approaches to improve performance in this regard are significant matters for the industry.

# Pollution of water

Oil and gas sector activities may result in water discharges, such as hydrocarbon liquids, acids, biocides or muds. Water contamination can also occur from the injection of drilling fluids into wells and flowback from hydraulic fracturing. Inefficient treatment of water discharges, oil spills from transportation accidents, ruptured pipelines or seepage, or failure of an oil sands tailings dam can cause severe and long-term impacts on (ground, surface, sea) water quality. Pollution can result from regular activities or can be related to incidental spills and industrial hazards connected to operations, infrastructure decommissioning or abandoned assets. Such incidents, events and catastrophes may result in severe environmental and social consequences and trigger significant financial liabilities, reputational damage and can be especially acute in areas of high-water stress.

# Pollution of soil

Activities within the oil and gas sector (e.g., production and drilling), as well as pollution incidents and catastrophes (e.g., accidental ore oil spills), can result in releases of harmful substance, vibration or other contaminant into sand, silts, shells and gravel, as well as the underlying sediments and groundwater resources. These contaminants lead to changes in the geotechnical properties of soils (e.g., decreased permeability due to oil spills) and are persistent in the environment, resulting in increasing soil toxicity over time, subsequently affecting pollutants accumulation in habitats and organisms. Such pollutants can include heavy metals, cuttings, muds, hydrocarbon liquids or fluids from drilling, as well as non-hydrocarbon substances, which result from regular activities or can be related to incidental spills and industrial hazards connected to operations, infrastructure decommissioning or abandoned assets.

# Pollution of living organisms and food resources

Living organisms and food resources can be at risk of exposure to potential contamination with pollutants present in the value chain of the oil and gas sector. Releases of hydrocarbons and other types of contaminants into the air, water and soil may negatively impact the healthy development of soils and plants and cause severe effects on marine and other living organisms which depend on natural resources for survival, additionally impacting the availability of food resources. Monitoring and management of pollution sources is therefore essential for avoiding negative environmental, social and economic consequences for the industry.

# Substances of concern

Multiple activities in the oil and gas sector may involve a large range of substances of concern which need to be managed. The use of these substances is currently regulated and overseen under the REACH and CLP regulations due to their human health and environmental impact. Some examples of key substances in oil and gas operations include diesel particulate matter (e.g., powering drilling equipment), hydrocarbon gases and vapours, crystalline silica (respirable).

# Substances of very high concern

Certain activities in oil and gas may also involve a large range of substances of very high concern (SVHC) which need to be managed by undertakings. Those substances are currently regulated and overseen under REACH regulation due to their human health and environmental impact. Some examples of key hazardous substances used during oil and gas exploration and extraction are oilfield chemicals, drilling fluids and fracking fluids (containing a variety of compositions of chemicals, potentially including endocrine disruptors), hydrogen sulfide, and naturally occurring radioactive material (e.g. contaminated pipes and equipment containing pipe scales and drilling mud and sludge).

#### E3: Water and marine resources

#### Water withdrawals

Oil and gas activities have significant impacts on water availability. Specific sector activities may withdraw large water quantities for extraction or processing methods, including the hydraulic fracturing or oil sands mining. The scale of water withdrawals can vary depending on the activity, but reinjection and reuse is playing critical role in minimizing the negative impacts. Given that the large proportion of industrial activities takes place in the areas of high water stress, marked by increased competition for water resources, management of risks along the whole supply chain is essential for the sector to avoid significant environmental and social impacts connected with water availability and quality.

# Water consumption

The amounts of water that are not returned to the environment are relevant sustainability matter within the sector and are referred as to consumed water. Impacts related to water consumption within oil and gas industry may refer to water converted to waste, evaporated, transpired, or being polluted to the point of being unusable by other users, which prevents it from being released back to surface water, groundwater, seawater, or a third party over the course of the reporting period.

#### Water use

Oil and gas sector can use relatively large quantities of water depending on their size and the complexity of the processes. This exposes the undertakings to the risk of reduced water availability, depending on their location, and related costs. Usage of water from water-stressed regions may also create tensions with local communities. Sustainable management of water often require wastewater treatment and disposal, often via on-site wastewater treatment plants before discharge. Reducing water use and contamination through recycling, other water management strategies, and use of non-toxic fracturing fluids could create operational efficiency for companies and lower their operating costs. Such strategies could also minimize the impacts that regulations, water supply shortages, and community-related disruptions have on operations.

# Water discharges in water bodies and in the oceans

The oil and gas industry handles large quantities of water, process wastewater and stormwater, which can be then discharged to surface water, groundwater or seawater. These are normally treated to remove contaminants before being discharged, in compliance with regulatory requirements. Subsequent to that, water can be discharged into the receiving waterbody either at the defined discharge points or dispersed in an undefined manner, it also can be authorized or unauthorized. The quality of its discharges can have impacts on ecosystems and people. Constituents or measures for discharges may include chemical oxygen demand (COD), sulphides, ammonia, phenols, total suspended solids (TSS), or non-aqueous drilling fluids discharged).

# Habitat degradation and intensity of pressure on marine resources

Leaks, accidental discharges, pipeline rights-of-way, and open easements over ecologically sensitive land could impact ecosystems in several ways, including natural habitat loss and changes in species movement. Impacts on the habitat degradation and intensity of pressure on marine resources can result also from decommissioning offshore structures when elements that should be removed become part of benthic communities and habitats. In some cases, decommissioning can occur in situ and structures may be left in place. When this happens, impacts can include marine pollution from corrosion, ecosystem changes, damage to fishing equipment, and navigational hazards to shipping.

# E4: Biodiversity and ecosystems

# Direct impact drivers of biodiversity loss

High impact activities in the sector include, but are not limited to land clearance, seismic testing, drilling of exploration wells, infrastructure establishing, transportation, water and waste discharges, spills and leaks. Such activities may result in contamination of air, soil and water, soil erosion, and sedimentation of waterways, contributing to degradation of biodiversity and ecosystems. Considering

that biodiversity-related risks are likely to increase within the sector with progressing resources depletion and moving of activities into new, more remote areas, it is essential to monitor and manage the direct, indirect and cumulative impacts, within both short and long term.

# Impacts on the state of species

Impacts on the state of species can include animal mortality or increased vulnerability to predators, habitat fragmentation and conversion, as well as the introduction of invasive species and pathogens, land degradation, or soil sealing. Severe effects from activities can be exacerbated when activities occur in protected areas or areas of high biodiversity value and may extend well beyond the closure and rehabilitation of operational sites or geographic boundaries of activities.

# Impacts on the extent and condition of ecosystems

Due to its multiple potential direct and indicated impacts, sector activities can lead to significant land degradation (e.g. due to pollution) and soil sealing (e.g. due to road construction, increased local economic activity, etc), impacts that occur by same pressures that drive land-use change.

# Impacts and dependencies on ecosystem services

Sector activities may affect ecosystems' ability to regulate water flow, water quality, and hazards like fires and floods, provide a suitable habitat for pollinators (who in turn provide a service directly to people and economies), and sequester carbon (in terrestrial, freshwater and marine realms). Monitoring of direct, indirect and cumulative impacts on biodiversity in long and short term is therefore of essential importance to environment, but is also vital to human health, food security, economic prosperity, and mitigation of climate change and adaptation to its impacts.

# E5: Resource and circular economy

# Resources inflows, including resource use

The oil and gas sector activities are based on inflow of geologically stored fossil fuels, as well as on the extensive use of other materials (steel and other metals, cement and concrete), including environmental resources. Optimising resource exploitation, improving resource efficiency and implementing effective ways of materials management are therefore critical to minimize local risks to the environment and communities, as well as improve the cost efficiency. The opportunities for efficient use of materials include renewable and alternative energy generation, implementing responsibly produced materials in supply chain (e.g., recycled or biobased raw materials; easily reusable, disassemblable or repairable materials or components) and optimisation of resources (e.g., advanced methane detection).

# Resource outflows related to products and services

Resource outflows refer to materials, products and services coming out of the sector, including petroleum products put on the market and their packaging, as well as used equipment and machinery resulting from decommissioning activities. Opportunities aimed to enhance circular economy can include, for instance, the increase in recirculation of tools from disused structures or the reuse of facilities and assets that were removed from oil and gas operativity.

#### Waste

Regular oil and gas activities, the development of new facilities, as well as decommissioning of infrastructure typically generates high volumes of waste, including hazardous waste. The waste streams can consist of drilling muds and cuttings, tailings (e.g., oil sands mining generated during the separation process of bitumen from sand), scale or sludges, which may contain high amounts of pollutants (e.g., heavy metals, hydrocarbons, chemical additives, naturally radioactive material) and carry the risks of environmental contamination (e.g., tailing ponds leaking substances). Undertaking's infrastructure and approach to waste management, including waste recovery for beneficial use (e.g., recycling of materials from disused facilities such as concrete and steel, plastic recycling, oil regeneration), is, therefore, critical to avoid severe environmental impacts.

#### S1: Working time and work-life balance

Many operations in the oil and gas sector are typically operated in a manner that involves irregular working hours for a large portion of the own workforce concerned. Operations such as production and refining are operated continuously (around-the-clock, including on weekends). Shift work longer than eight hours, and evening, night and weekend work are typically used in these types of operations. Exploration, development and production frequently is done far away from populated areas ("remote locations"), and undertakings often resort to arrangements whereby workers will rotate between multiday or multi-week periods on site, with few work breaks, and periods with time off off-site ("fly-in fly-

out" arrangements). In such remote locations adequate housing, access to water and sanitation and health care are often material matters.

Research has demonstrated an association between extensive irregular working hours and time without family, recreation, and leisure and negative impacts on physical and psychological health and work-life balance. Extensive use of irregular working hours may make it difficult for undertakings to retain their workers and recruit new workers.

# S1: Adequate wages and secure employment

Many undertakings in the oil and gas sector make extensive use of non-employee workers, typically referred to as 'contractors' - that is, self-employed workers contracting directly with the undertaking or supplied by employment agencies as well as migrant workers. Many of these workers are utilized for extended periods of time for regular operations, and perform work which is the same or similar to the work that employees do. However, these workers lack the employment security and, frequently, the wages and benefits that employees receive. Secure employment is also particularly material for the oil and gas sector as non-employee workers may have fewer rights to unemployment and early retirement benefits and access to retraining than employees when it comes to the closure of oil and gas sites. Migrant workers could also lack employment security or have less protection under national laws.

Another factor contributing to the materiality of these matters is the extensive contracting-out of oil and gas operations. Contracting-out arrangements have relevance for the security of employment, since workers for such operators frequently have temporary contracts.

# S1: Freedom of association and collective bargaining

The oil and gas sector in many countries has a higher rate of trade union representation and collective bargaining coverage than the economy-wide national average. However, freedom of association may be at risk, particularly in locations where these are not guaranteed by national legislation and/or where enforcement is weak. Many oil and gas operations are located in countries where the rule of law has broken down (ten of the 148 countries rated in the 2022 ITUC Rights Index), where labour rights are not guaranteed (34 countries) or where there are systematic violations of labour rights (39 countries). Offshore operations may be particularly challenging for collective bargaining arrangements. The proportion of self-employed workers ('contractors') whose working conditions are determined by a collective bargaining agreement (the 'collective bargaining coverage rate') is typically lower than that of employees.

# S1: Training and skills development

Training and skills development are particularly significant in the oil and gas sector along a number of dimensions. Oil and gas can be both technically difficult and dangerous and it is therefore imperative that the workers are properly trained and have the skills and capabilities to handle the risks entailed. Health and safety-related training, including the proper operation of equipment and hazardous chemicals, is key to reduce the risk of accidents and occupational diseases.

Some oil and gas operations are placed in the middle or close to conflict-affected or high-risk areas. They may also be the subject of controversy which leads to the necessity of security personal. Thus, this sustainability matter also includes training of security personal in human rights and humanitarian law.

# S1: Measures against violence and harassment in the workplace

The oil and gas sector has a high proportion of male workers. The risk of sexual harassment at the workplace is particularly high in 'male dominated' sectors and at remote locations.

Negative publicity on this issue can have a negative impact on the reputation of specific undertakings as well as on the industry as a whole, and can make it more difficult to retain existing and recruit new female workers.

Measures against violence and harassment at the workplace include clear policies on these issues, workforce training and an effective grievance procedure.

# S1: Diversity, including gender equality and equal pay for work of equal value

The required conditions, locations, skills, and types of work associated with the oil and gas sector can be a barrier for entry, hinder employee diversity and result in discrimination. Discriminatory practices can limit access to jobs, as well as lead to inequalities in treatment, remuneration, and benefits. Cases

of discrimination in the sector may include race, colour, sex, gender, disability, religion, national extraction, and worker status. Recruitment bias and unequal pay may also create disadvantage for local communities. The sector features significant gender imbalance, showing especially in senior management positions. Limited parental leave, extended work arrangements, social or cultural biases, or specific country-laws preventing women from working in hazardous or arduous occupations may also increase the barriers to job access.

# S1: Other work-related rights

The sector's business relationships, including relations with state-owned enterprises in countries where violations of human rights occur, may result in incidents of forced labour and modern slavery.

# S1/S2: Health and safety

Many oil and gas operations are both strenuous and dangerous and are associated with high degree of risk on a number of health and safety matters. Injuries may be caused by accidents with heavy equipment or transport to remote areas such as offshore oil rigs. Workers' health may be impaired by prolonged exposure to hazardous substances. This sector has higher than average rates of fatalities, injuries, lost workdays and occupational diseases. Worker injuries, illnesses, and fatalities can lead to regulatory penalties, negative publicity, low worker morale and productivity, and increased healthcare and compensation costs.

This sustainability matter covers the undertakings policies regarding health and safety, critical incident risk management, as well as workforce health, wellbeing, and safety. Moreover, considering the recent covid-19 pandemic, the sustainability matter also covers pandemic preparedness and the undertaking's response within its value chain.

The sector is characterized by the extensive use of on-site contractors for construction and maintenance. The relationship with these contractors is typically extensive given the large capital investments involved and the length of time these contractors will be working on-site (for example, oil rigs may take a year or more to construct and may cost tens or even hundreds of millions of euros to construct). The health and safety risks faced by own workforce thus extend to the workers of these contractors (the ILO has noted that health and safety risks are particularly high for contract workers in this sector).

# S2: Working conditions

While the sector generates employment across all its value chain, its practices may also be associated with negative impacts, such as disparities in working conditions for contract workers, ineffective labour-management consultations and job insecurity. Outsourcing activities is common in the industry, resulting in reduced labour costs and avoiding collective agreements. It may cause less favourable conditions for contract workers, lower remuneration, less training, higher accident rates, diminished job security, lack of social protection or access to the grievance mechanisms, as well as unequal terms between different groups of workers. Lack of relevant skills, knowledge, or accessible training programs may also restrict local communities from accessing employment opportunities created by the sector.

# S2: Diversity, including gender equality and equal pay for work of equal value

The conditions, locations, necessary skills, and types of work associated with the oil and gas sector can be a barrier for entry, hinder employee diversity, and result in discrimination. Discriminatory practices can impede access to jobs and career development, as well as lead to inequalities in treatment, remuneration, and benefits. Documented cases of discrimination in the oil and gas sector concern race, colour, sex, gender, disability, religion, national extraction, and worker status. The sector's widespread use of contract workers, often with differing terms of employment, can also be conducive to discrimination.

# S2: Other work-related rights

The sector is exposed to risks of violations of human rights and other ways of exploitation in its supply chain, which may include organizations that operate in the countries with low rates of enforcement of human rights. Activities at risk can include work at oil fields and offshore platforms, such as in catering, cleaning, construction, maintenance and waste management, as well as in marine and land transportation activities. Operations aboard ships registered in countries other than the country of the ship's beneficial owner may create increased risks of human rights violations linked to external crewing companies and obscured accountability. Offshore work may bring risk of forced labour due to isolated locations and challenges in enforcing appropriate measures. Selection of suppliers using social criteria is essential to mitigate negative impacts.

# S3: Communities' economic, social and cultural rights

The sector positive impacts may include investment and income for local communities, local employment and procurement, community education and training, leading to increased purchasing power and local business development. Depending on the organization practices, the industry can also cause negative impacts related to potential economic disparities, increased dependence of local suppliers and vulnerability of local groups. For example, an influx of external workers may increase pressure on housing, infrastructure and public services. Local communities may also need to cope with environmental legacy costs of sector activities. The transition to a low-carbon economy is expected to decrease the activity in the oil and gas, making communities that depend on the sector more vulnerable to the resulting economic downturn. Local communities may also be affected by land acquisitions, which can lead to a loss of livelihood. Oil and gas activities can sometimes result in the displacement of other land users, restricting their access to resources and involuntary resettlement of local communities. This resettlement can lead to physical and economic displacement, impacting local communities' livelihoods and human rights.

# S3: Communities' civil and political rights

Oil and gas activities may trigger local conflict or intensify existing ones, especially in the areas characterized by social and political instability. Possible causes to conflicts may include negative environmental impacts, inadequate engagement of stakeholders and indigenous people in decision-making, uneven or disproportionate distribution of economic benefits or disputes over the use of land and natural resources. Such conflict can heighten the need to engage security personnel, increasing the risks for violations of human rights, such as the rights to freedom of association and freedom of speech, as well as lead to violence, injuries, or deaths. Organizations in the sector have responsibility to ensure security practices consistent with protection of human rights and facilitating communication to address the sources of conflict.

# S3: Particular rights of indigenous communities, including free, prior and informed consent; self-determination; and cultural rights

Sector's proximity to communities can present economic opportunities and benefits for indigenous peoples through employment, training, and community development programs. However, it can also disrupt indigenous peoples' cultural, spiritual, and economic ties to their lands or natural environments, on which they may be dependent. Sector's activities may risk compromising indigenous peoples' social cohesion, rights, safety and well-being, cause displacement or limit access to water for those communities. Some negative impacts may affect indigenous women more severely than men. Indigenous peoples have often a special legal status and before initiating development on lands or resources that indigenous peoples use or own, organizations are expected to seek free, prior, and informed consent (FPIC).

# S4: Information-related impacts for consumers and/or end-users

The undertakings in the sector have unique access to information channels and mainstream media which are shaping narratives around sustainability matters. Oil and gas companies are also facing significant pressure from stakeholders to provide transparent and comprehensive information on their environmental and social performance. In the past, the sector has faced multiple controversies around information practices and the alignment of its corporate communication with globally established climate and social targets remains an important sustainability matter.

# S4: Personal safety of consumers and/or end-users

Consumer safety is an important part of the safety management within the retail part of the sector. The retail sale of automotive fuel is typically realised under multiple safeguards that prevent potential threats of fires at the gas pumps and allow safe dispensing and handling of fuels. Undertakings in the sector need to identify and manage any actual and potential impacts on the personal safety of consumers, implementing policies related to keeping safe from fire and explosion hazards, emissions of carbon monoxide, safe storage and disposal of fuels, but also theft, violence or slip and fall accidents.

# S4: Social inclusion of consumers and/or end-users

Consumers are at the centre of the EU energy policy and there is a wide range of EU actions and measures aim at protecting and empowering energy consumers. Access to energy at affordable prices has been and is a priority of the EU with a number of government actions, including direct subsidies to consumers, being taken to ensure stable petrol prices during the energy crisis in Europe.

#### G1: Business conduct

Given the wide sustainability impacts of oil and gas sector, as well as its dynamics and complexity, a system of shared values and norms are essential to provide a clear expectation on behaviours for stakeholders across the whole value chain. The corporate culture is essential to manage the risks related to governance and it typically envelops code of conduct and ethics within the organization, policies related to dialogue with stakeholders, as well as the governance bodies influencing organization.

# G1: Political engagement and lobbying activities

The oil and gas sector can exert significant influence on government policies and is among the sectors with the largest lobbying expenditures. In regions where activities generate significant revenues, organizations in the sector may obtain better representation amongst government representatives and increased power over public policy decisions. Strong political influence creates risks of disruption to the policies and regulations, unequal distribution of governmental subsidies or setting commodity prices that do not reflect the full costs of products. Monitoring and management of political engagement of the sector is essential for effective allocation of national resources towards the low-carbon economy transition, sustainable development and decreasing dependence on the fossil fuels.

# G1: Management of relationships with suppliers including payment practices

Organizations in the oil and gas sector deal with many complex financial transactions, including payments to suppliers and governments. The fair behaviour with suppliers is essential to avoid supply chain disruption, especially in context of dealing with small and medium enterprises, which can be particularly vulnerable to late payments. Transparency of payments to governments, reporting country-level and project-level payments can also help distinguish the economic importance of the oil and gas sector to countries, enable public debate, and inform government decision-making. It can also enable governments to address tax avoidance and evasion, correct information asymmetry and level the playing field for governments when negotiating contracts.

# G1: Corruption and bribery

Corruption in the oil and gas sector can occur throughout the value chain and has been linked to various negative impacts, such as misallocation of resources revenues, damage to the environment, abuse of democracy and human rights, and political instability. Due to its characteristics of interactions and complexity of financial transactions, the oil and gas sector faces higher risks of corruption in comparison with other sectors. To combat corruption and prevent the negative impacts that stem from it, organizations in the oil and gas sector are expected by the marketplace, international norms, and stakeholders to demonstrate their adherence to integrity, governance, and responsible business practices. Responsible business conduct of the sector also includes the anti-competitive behaviour practices as well as beneficial ownership.

# G1: Cyber security

Cyber security addresses security in "cyber space". Oil and gas sector encompasses high critical infrastructure and has also embraced new technologies in the various aspects of their activities in the past few years. The industry widely uses digital control systems, such as SCADA, to automate the industrial, physical processes taking place in exploration facilities, refineries and oil and gas pipelines. The systems are used to automating, controlling and monitoring equipment such as valves, pumps or centrifuges.

This digital transformation goes hand in hand with an increased reliance on trustworthy and stable information and network systems. However, this evolution amplifies the vulnerability and exposure to cyber threats. Cyberattacks can cause serious damage to the undertaking's assets, impair property and divulge sensitive information. Moreover, they can disrupt operations, services to clients and supply chain interactions. All this might lead to financial costs and losses as well as adverse impact on people and environment