

This paper has been prepared by the EFRAG Secretariat for discussion at a public meeting of EFRAG SRB. The paper forms part of an early stage of the development of a potential EFRAG position. Consequently, the paper does not represent the official views of EFRAG or any individual member of the EFRAG SRB or EFRAG SR TEG. The paper is made available to enable the public to follow the discussions in the meeting. Tentative decisions are made in public and reported in the 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.

NOTE: VARIATIONS WILL OCCUR WITH OTHER SECTOR STANDARDS IN DEVELOPMENT UNTIL DEFINITIVE DECISIONS ARE MADE. -> VARIATIONS WILL OCCUR IN THE NEXT VERSION OF THE DRAFT REFLECTING THE PROGRESS OF THE DISCUSSIONS

**WORKING PAPER IN PREPARATION
OF DRAFT EUROPEAN SUSTAINABILITY REPORTING STANDARD
ESRS Oil and Gas
FOR SR TEG DISCUSSION**

DISCLAIMER

The working paper Oil and Gas is set out in paragraphs 1 to 156 and Appendices A: Defined Terms and B: Application Requirements, C: Sustainability Matters and D: NACE codes. Appendices A, B, C and D have the same authority as the main body of the [draft] Standard. Each Disclosure Requirement is stated in a bold paragraph that illustrates the objective of the disclosures. This working paper also uses terms defined in other [draft] ESRS and shall be read in the context of its objective.

Objective	5
Interaction with other ESRS	5
Sector description and sustainability matters	6
Sector description: Oil and Gas	6
Sustainability matters: Oil and Gas	7
Disclosure Requirements and specifications	8
ESRS 2 General Disclosures	8
Disclosure Requirement OG 1 - List of operational sites and infrastructure	8
Disclosure Requirement related to ESRS 2-SBM1-1 - Market position, strategy, business model(s) and value chain.....	9
Disclosure Requirement related to ESRS 2-SBM1-2 - Market position, strategy, business model(s) and value chain.....	10
Disclosure Requirement to material impacts, risks and opportunities and their interaction with strategy and business model(s) (ESRS 2 IRO-1)	10
E1: Climate	11
Disclosure Requirement to ESRS E1-1 – Transition plan for climate change mitigation.....	11
Disclosure Requirement related to ESRS E1-2 – Policies related to climate change mitigation and adaptation.....	12
Disclosure Requirement related to ESRS E1-3 – Actions and resources in relation to climate change policies	12
Disclosure Requirement related to ESRS E1-4 – Targets related to climate change mitigation and adaptation.....	12
Disclosure Requirement related to ESRS E1-6 – Gross scope 1,2,3 and Total GHG emissions ...	12
Disclosure Requirement related to ESRS E1-9 – Potential financial effects from material physical and transition risks and potential climate-related opportunities.....	13
Disclosure Requirement OG 2-E1 - CO ₂ abatement technologies	13
Disclosure Requirement OG 3-E1 - GHG emission intensity of energy	14
E2: Pollution prevention and control	14
Disclosure Requirement related to ESRS E2-1 – Policies related to pollution	14
Disclosure Requirement related to ESRS E2-2 – Pollution action plans and resources	15
Disclosure Requirement related to ESRS E2-3 – Targets related to pollution.....	16
Application Requirement to ESRS E2-4 – Pollution of air, water and soil	16
Disclosure Requirement OG 4-E2 Industrial risk management	17
Disclosure requirement OG 5-E2 – Hydraulic fracturing	17
E3: Water and Marine Resources	17
Disclosure Requirement to ESRS E3-1 – Policies related to water and marine resources	17
Disclosure Requirement OG 6-E3 – Water withdrawal	18
Disclosure Requirement OG 7-E3 – Water discharge	18
Disclosure Requirement OG 8-E3 – Marine resources.....	19
E4: Biodiversity and Ecosystems	19
Disclosure Requirement related to ESRS E4-2 – Policies related to biodiversity and ecosystems.	19
Disclosure Requirement related to ESRS E4-3 – Actions and resources related to biodiversity and ecosystems.....	19
Disclosure Requirement related to ESRS E4-4 – Targets related to biodiversity and ecosystems.	20
Disclosure Requirement related to ESRS E4-5 – Impact metrics related to biodiversity and ecosystems change.....	20
E5: Resource use and circular economy	21

Oil and Gas WP V2 Clean

Disclosure Requirement related to ESRS E5-1 – Policies related to resource use and circular economy	21
Disclosure Requirement related to ESRS E5-2 – Action plans and resources in relation to resource use and circular economy	21
Disclosure Requirement related to ESRS E5-3 – Targets related to resource use and circular economy	21
Disclosure Requirement related to ESRS E5-4 – Resource inflows	21
Disclosure Requirement related to ESRS E5-5 – Resource outflows	21
S1: Own workforce	22
Disclosure Requirement related to ESRS S1-14 – Health and safety indicators	22
Disclosure Requirement OG 9-S1 – Working hours	22
S3: Affected communities	22
Disclosure Requirement related to ESRS S3-1 – Policies related to affected communities	22
Disclosure Requirement related to ESRS S3-2 - Processes for engaging with affected communities about impacts.....	23
Disclosure Requirement related to ESRS S3-3 - Processes to remediate negative impacts and channels for affected communities to raise concerns	23
Disclosure Requirement related to ESRS S3-4 - Taking action on material impacts, and approaches to mitigating material risks and pursuing material opportunities related to affected communities, and effectiveness of those actions and approaches.....	24
Disclosure Requirement OG 10-S3 - Impact metrics on affected communities	25
Disclosure Requirement OG 11-S3 - Operations in or near areas of conflict	25
Disclosure Requirement OG 12-S3 - Reserves in or near indigenous land	25
Disclosure Requirement OG 13-S3 - Respect for human rights	25
G1: Business conduct	26
Disclosure requirements related to ESRS G1-5 – Political influence and lobbying activities.....	26
Disclosure requirements related to ESRS G1-6 – Payment practices	26
Disclosure Requirement OG 14-G1 - Sales to, support received from and payments made to governments	27
Disclosure Requirement OG 15-G1 – Suppliers assessed for social impacts	27
Disclosure Requirement OG 16-G1 – Anti-competitive.....	28
Disclosure Requirement OG-17 [MIN-12-G1] – Number of data breaches, policies and practices relating to cybersecurity.....	28
Appendix A: Defined terms	29
Appendix B: Application Requirements	33
ESRS 2 related requirements	33
Application Requirement related to ESRS 2-SBM1-1 - Market position, strategy, business model(s) and value chain.....	33
Application Requirement related to ESRS 2 – SBM 2 Interests and views of stakeholders	33
Application Requirement related to ESRS 2 – SBM 3 Material impacts, risks and opportunities with their interaction with strategy and business model(s)	33
Application Requirement to ESRS 2-GOV4 Statement on sustainability due diligence	33
ESRS E1 related requirements	34
Application Requirement to ESRS E1-1 – Transition plan for climate change mitigation	34
Application Requirement to ESRS E1-4 – Targets related to climate change mitigation and adaptation	34
Application Requirement to ESRS E1-6 – Gross scope 1,2,3 and Total GHG emissions	34
ESRS E2 - related requirements	35
Application Requirement to ESRS E2-2 – Pollution action plans and resources	35
Application Requirement OG 4-E2 Industrial risk management	35

Oil and Gas WP V2 Clean

ESRS E3 - related requirements	35
Application Requirement to ESRS E3-1 – Policies related to water and marine resources.....	35
Application Requirement to OG 6-E3 – Water withdrawal	36
Application Requirement to OG 7-E3 – Water discharge.....	36
ESRS E4 - related requirements	37
Application Requirement related to ESRS E4-2 - Policies related to biodiversity and ecosystems.	37
Application Requirement related to ESRS E4-3 - Actions and resources related to biodiversity and ecosystems.....	37
Application Requirements related to ESRS E4-5 - Impact metrics related to biodiversity and ecosystems change.....	38
ESRS S1 - related requirements	39
Application Requirements to OG 9-S1 – Working hours.....	39
ESRS S3 - related requirements	40
Application Requirement to ESRS S3-4 - Taking action on material impacts, and approaches to mitigating material risks and pursuing material opportunities related to affected communities, and effectiveness of those actions and approaches.....	40
Application Requirement to OG 11-S3 – Reserves in or near areas of conflict	41
Application Requirements to OG 12-S3 - Reserves in or near indigenous land	41
Application Requirement to OG 13-S3 – Respect for human rights.....	42
ESRS G1 - related requirements	42
Application Requirements to ESRS G1-2 – Management of relationships with suppliers	42
Application Requirements to ESRS G1-5 - Political influence and lobbying activities.....	42
Application Requirements to OG 14-G1 - Sales to, support received from, and payments made to governments	42
Appendix C: Sustainability matters	44
Appendix D: NACE codes	51

Objective

1. The objective of this [draft] ESRS is to specify disclosure requirements applicable to all undertakings within the Oil and Gas Sector that are additional to the sector-agnostic ESRS disclosures. They address impacts, risks and opportunities not covered, or not sufficiently covered, by sector-agnostic Disclosure Requirements and have to be applied in conjunction with them.
2. In addition, this [draft] ESRS also specified Oil and Gas specific application requirements to existing sector-agnostic disclosure requirements, which should be taken in consideration by the undertaking in the preparation of their sustainability disclosures.
3. Disclosure Requirements in this [draft] ESRS will enable users of the sustainability statements to understand the undertaking's material impacts, as well as related material risks and opportunities arising with regard to a list of sustainability matters that are material for the undertakings in the Oil and Gas Sector.
4. This [draft] Standard requires undertakings in the sector to disclose:
 - (a) the material actual or potential, positive or negative impacts in relation the environmental, social and governance matters material for the Oil and Gas Sector;
 - (b) any actions taken, and the result of such actions, to prevent or mitigate actual or potential material negative impacts;
 - (c) the nature, type and extent of the undertaking's material risks and opportunities related to its impacts and dependencies in relation to the list of matters that are material for the Oil and Gas Sector (as identified in Appendix C of this [draft] ESRS), and how the undertaking manages them; and
 - (d) the financial effects on the undertaking over the short-, medium- and long-term time horizons of material risks and opportunities.

Interaction with other ESRS

5. This Oil and Gas sector [draft] ESRS identifies a list of matters that shall be considered material for all the undertaking operating in the Oil and Gas sector, irrespective of the outcome of their materiality assessment. The undertaking falls into the scope of application of this [draft] ESRS shall consider, for the purposes of paragraph 31 of ESRS 1, that the sustainability matters listed in the table in paragraph 17 below are material. The undertaking applies paragraphs 33 to 39 of ESRS 1 to define the information to be included in its sustainability statements in relation to each of these matters.
6. An undertaking is within the scope of application of this [draft] ESRS when it discloses Oil and Gas as a significant sector according to paragraph 38 (b) and/or (c) of ESRS 2, using the criteria in AR 12 of ESRS 2 to define a significant sector.
7. [draft] ESRS SEC 1 Sector classification defines the aggregation of activities (NACE codes) into sectors for the purposes of applying sector ESRS. The list of NACE codes that are considered as pertaining to the Oil and Gas sector are listed in Appendix D to this [draft] ESRS, consistent with SEC 1.
8. This Oil and Gas sector [draft] ESRS also outlines sector specific Disclosure Requirements applicable for undertakings in the Oil and Gas sector and includes two types of requirements:
 - (a) requirements that provide sector-specifications in relation to sector agnostic Disclosure Requirements in order to either (i) complement with additional datapoints - presented in the main body of this standard - or (ii) support the application of Disclosure Requirements - presented in the Application Requirements of this standard, therefore to be disclosed if the related Disclosure Requirement from sector-agnostic disclosure is material;
 - (b) sector-specific Disclosure Requirements to be reported additionally to the Disclosure Requirements in the sector-agnostic standards – presented in the main

body of this standard and when applicable accompanied by Application Requirements in Appendix B of this standard. These Disclosure Requirements are separately numbered.

9. Undertakings in the Oil and Gas sector shall apply the [draft] cross cutting and [draft] topical ESRS requirements in addition to requirements of this Standard to both its own operations and, where relevant, to reporting on material impacts, risks and opportunities in the undertaking's value chain.
10. When preparing its sustainability statements, the undertaking shall group the disclosures by cross-cutting reporting area and, where applicable, by sustainability topic (or when applicable matter). Disclosures stemming from the [draft] Oil and Gas ESRS shall be presented alongside the disclosures required by the corresponding sector-agnostic ESRS (see ESRS 1 paragraph 117).

Sector description and sustainability matters

Sector description: Oil and Gas

11. The Oil and Gas sector is composed of Upstream, Midstream, Downstream and Services activities.
12. Oil and Gas Upstream activities include the 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 classified under NACE include B.06.10 Extraction of crude petroleum and B.06.20 Extraction of natural gas.
13. Oil and Gas Midstream includes 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 classified under NACE include H.49.50 Transport via pipeline.
14. Oil and Gas Downstream activities include refining and marketing of petroleum products, which includes operating gas stations and convenience stores. . Activities classified under NACE include C.19.20 Manufacture of refined petroleum products, G.46.71 Wholesale of solid, liquid and gaseous fuels and related products and G.47.30 Retail sale of automotive fuel in specialised stores.
15. Oil and Gas Services 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. The provision of equipment comprises selling or renting equipment used in the extraction, storage, and transportation of oil and natural gas. Services are usually provided on a contractual basis, and equipment is either purchased, leased or rented. Activities classified under NACE include B.09.10 Support activities for petroleum and natural gas extraction.
16. Integrated oil and gas undertakings are involved in activities in more than one of the above segments, typically across upstream, midstream and downstream activities.

Sustainability matters: Oil and Gas

17. This [draft] ESRS sets out Disclosure Requirements related to the sustainability matters considered material to the Oil and Gas sector, listed in the table below. A Detailed descriptions of them is included in Appendix C.

Environmental	Social	Governance
E1: Climate change adaptation	S1: Working conditions	G1: Corporate culture
E1: Climate change mitigation	S1: Equal treatment and opportunities for all	G1: Political engagement and lobbying activities
E1: Energy	S1: Other work-related rights	G1: Management of relationships with suppliers including payment practices
E2: Pollution of air	S2: Working conditions	G1: Corruption and bribery
E2: Pollution of water	S2: Equal treatment and opportunities for all	G1: Risk management and internal control processes
E2: Pollution of soil	S2: Other work-related rights	
E2: Pollution of living organisms and food resources	S3: Communities' economic, social and cultural rights	
E2: Substances of concern	S3: Communities' civil and political rights	
E2: Substances of very high concern	S3: Particular rights of indigenous communities	
E3: Water withdrawals	S4: Information-related impacts for consumers and/or end-users	
E3: Water consumption	S4: Personal safety of consumers and/or end-users	
E3: Water use	S4: Social inclusion of consumers and/or end-users	
E3: Water discharges in water bodies and in the oceans		
E3: Habitat degradation and intensity of pressure on marine resources		
E4: Direct impact drivers of biodiversity loss		
E4: Impacts on the state of species		
E4: Impacts on the extent and condition of ecosystems		
E4: Impacts and dependencies on ecosystem services		
E5: Resources inflows, including resource use		
E5: Resource outflows related to products and services		

Disclosure Requirements and specifications

ESRS 2 General Disclosures

Disclosure Requirement OG 1 - List of operational sites and infrastructure

18. **The undertaking shall disclose a list of material operational sites that it financially or operationally controls.**
19. The objective of this Disclosure Requirement is to enable an understanding of the undertakings' physical footprint and exposure to potential local impacts and risks.
20. **When identifying an operational site [TO BE DISCUSSED] the undertaking shall include:**
- (a) Concessioned areas for oil and gas exploration, currently under development or in production;**
 - (b) tailing dams;**
 - (c) refinery assets;**
 - (d) oil and gas transmission pipelines.**
21. The undertaking shall specify the status of the operational site [TO BE DISCUSSED], and specify:
- (a) whether the site is active;
 - (b) whether the site has a closure and rehabilitation plans in place;
 - (c) whether the site is undergoing closure activities;
 - (d) whether the site has been closed; or
 - (e) whether the site has been rehabilitated.
22. The undertaking shall also disclose the operational site [TO BE DISCUSSED] material impacts arising from social and environmental matters. This includes the following disclosures:
- (a) whether the site is located in or near to a protected areas or a key-biodiversity area;
 - (b) whether the undertaking causes or contributes to material impacts on the local community, specifically, in relation to:
 - i. indigenous peoples;
 - ii. land rights;
 - iii. infrastructure, including housing, food, water and sanitation, and power;
 - iv. pollution;
 - v. toxic waste storage or disposal;
 - (c) whether the operational site [TO BE DISCUSSED] is located in or near conflict affected or high-risk areas;
 - (d) whether involuntary resettlements have been caused or contributed to by the undertaking have taken place near the site; and
 - (e) a description of the activities and main characteristics of each site [TO BE DISCUSSED].

- (f) The undertaking shall also disclose whether it has emergency preparedness and response plans in place.

Disclosure Requirement related to ESRS 2-SBM1-1 - Market position, strategy, business model(s) and value chain

23. The undertaking shall provide a breakdown of its net revenue (both in monetary amount and as a percentage of its total revenue) per NACE-code activity where it is active for the following NACE-code activities¹:

- (a) B.06.10 Extraction of crude petroleum
- (b) B.06.20 Extraction of natural gas
- (c) B.09.10 Support activities for petroleum and natural gas extraction
- (d) C.19.20 Manufacture of refined petroleum products
- (e) G.46.71 Wholesale of solid, liquid and gaseous fuels and related products
- (f) G.47.30 Retail sale of automotive fuel in specialised stores
- (g) H.49.50 Transport via pipeline

24. The undertaking with upstream activities shall disclose the breakdown of its production and its proved reserves, over the following categories of countries, according to their compliance with the EITI standard quality assurance scale:

- (a) Countries with a very high progress in complying;
- (b) Countries with a high to satisfactory progress in complying;
- (c) Countries with a moderate to meaningful progress in complying;
- (d) Countries with a fairly low to inadequate progress in complying;
- (e) Countries with low to no progress in complying;
- (f) Countries that the 20 lowest rankings in Transparency International’s Corruption Perception Index;
- (g) Other countries.

25. Undertakings shall disclose the following activity metrics related to²:

(a) Upstream undertakings extraction of crude petroleum:

	Current production	Targeted production
Total Crude oil production,	[bbl]	[bbl]
of which:		
a. Oil sands or other extra heavy oil	[bbl]	[bbl]
b. Shale oil extracted via hydraulic fracturing	[bbl]	[bbl]
c. Crude oil near or in nature sensitive areas	[bbl]	[bbl]

(b) Upstream undertakings extraction of natural gas:

¹ This disclosure meets the requirements of (SFDR)
² This disclosure meets the requirements of (EBA Pillar 3)

	Current production	Targeted production
Total Natural gas production of which:	[Nm ³]	[Nm ³]
a. Natural gas processed into Liquefied natural gas (LNG)	[Nm ³]	[Nm ³]
b. Shale gas extracted via hydraulic fracturing	[Nm ³]	[Nm ³]
c. Natural gas near or in nature sensitive areas	[Nm ³]	[Nm ³]

(c) Midstream undertakings oil products distribution volume:

	Current volumes	Targeted volumes
Total distributed volume	[Ml]	[Ml]

(d) Downstream undertakings refining volume:

	Current production	Targeted production
Total refined volume, of which:	[bbl]	[bbl]
a. Oil sands or other extra heavy oil	[bbl]	[bbl]
b. Shale oil extracted via hydraulic fracturing	[bbl]	[bbl]

(e) Downstream undertakings power sold in retail stations (EV chargers):

	Current sales	Targeted sales
Total of which,	[MWh]	[MWh]
electricity with a GHG intensity of less than 100 g CO ₂ e/kWh	[MWh]	[MWh]

Disclosure Requirement related to ESRS 2-SBM1-2 - Market position, strategy, business model(s) and value chain

26. When disclosing according to the sector agnostic ESRS 2-SBM1-2 - Market position, strategy, business model(s) and value chain, the undertaking shall disclose the direct economic value generated and distributed.
27. The objective this disclosure requirement is to understand how the undertaking handles and distributes the economic value it creates among stakeholders, namely how shareholders, employees and local communities benefit from it.
28. The undertaking shall disclose, the direct economic value generated and distributed at the consolidated level.

Disclosure Requirement to material impacts, risks and opportunities and their interaction with strategy and business model(s) (ESRS 2 IRO-1)

29. When describing the process to identify material impacts, risks and opportunities according to the ESRS 2 IRO-1, the undertaking shall:
 - (a) include how it applies the mitigation hierarchy and international biodiversity standards in its operational planning, from early concept through to decommissioning

- (b) set out its processes for identifying and managing activities in sensitive operating areas, such as Biodiversity Actions Plans and include the criteria used to determine sensitivity and any applicable metrics
- (c) report whether application of the mitigation hierarchy has informed actions to manage biodiversity-related impacts
- (d) A list of the undertaking's projects and operations that are in water-stressed or water-scarce areas.

E1: Climate

Disclosure Requirement to ESRS E1-1 – Transition plan for climate change mitigation

30. Upstream undertakings shall describe whether the undertaking envisages any greenfield projects or expansions of oil and gas production and the geographical location of such greenfield projects.

31. Upstream undertakings shall breakdown their CAPEX into the following categories:

- (a) Prospection of new fossil resources;
 - i. undeveloped reserves to bring assets into production (developed producing reserves);
 - ii. non-producing reserves to bring assets into production (developed producing reserves);
 - iii. Investments in developed producing reserves;
- (b) Renewable-energy sources:
 - i. All sources (by type of source), excluding bioenergy;
 - ii. Bioenergy, including novel biofuel types;
- (c) Carbon Capture Utilization and Storage (CCUS):
 - i. Fossil Carbon capture and storage;
 - ii. Direct Air Capture and Storage (DACs);
- (d) Nature-based solutions to mitigate climate change;
- (e) Other research and development initiatives that can address the organization's risks related to climate change.

32. Undertakings shall disclose a breakdown of locked-in emissions according to the following table:

Reserves	Proved	Probable	Total
Developed producing reserves	[MtCO2]	[MtCO2]	[MtCO2]
Developed non-producing reserves	[MtCO2]	[MtCO2]	[MtCO2]
Undeveloped reserves	[MtCO2]	[MtCO2]	[MtCO2]

Disclosure Requirement related to ESRS E1-2 – Policies related to climate change mitigation and adaptation

33. When disclosing according to the sector agnostic E1-2 – Policies related to climate change mitigation and adaptation, the undertaking shall disclose its policies related to the management and abatement of methane emissions.
34. In the absence of methane emissions management policies, the undertaking shall explain why such policies are not in place.

Disclosure Requirement related to ESRS E1-3 – Actions and resources in relation to climate change policies

35. When disclosing according to the sector agnostic E1-3 – Actions and resources in relation to climate change policies, the undertaking shall disclose its actions and resources to manage and abate methane emissions, namely it shall disclose the methods used to monitor and quantify methane emissions, such as the use of Leak Detection & Repair (LDAR) surveys, as well as:
- (a) the frequency of the monitoring;
 - (b) the different methane monitoring technologies, e.g. remote sensing techniques or estimation methods.
 - (c) the actions taken to address the methane leakages found as a result of the regular monitoring surveys;
 - (d) the effectiveness of the actions taken;
 - (e) the geographical location of any significant flaring or venting emissions;
 - (f) the % of routine and non-routine flaring and cases of flaring;
 - (g) indicate areas for operational improvements;
 - (h) discuss the overall performance of the methane emissions management policy and actions, by source and activity in terms of total absolute emissions and emission intensities.

Disclosure Requirement related to ESRS E1-4 – Targets related to climate change mitigation and adaptation

36. When disclosing according to the sector agnostic E1-4 – Targets related to climate change mitigation and adaptation, the undertaking shall disclose methane emissions reduction targets that it has adopted.

Disclosure Requirement related to ESRS E1-6 – Gross scope 1,2,3 and Total GHG emissions

37. When disclosing according to the sector agnostic E1-6 – Gross scope 1,2,3 and Total GHG emissions, the undertaking shall provide a breakdown of its GHG emissions including the following:
- (a) Breakdown total scope 1 GHG emissions into total CO₂ and CH₄ emissions and do it in accordance to sector agnostic disclosure requirement E1-6 Application Guidance AG39 to AG50.
 - (b) Report the breakdown of total scope 1 GHG emissions by type of source, namely i) stationary combustion; ii) flaring; iii) venting, and iv) fugitive.
38. The undertaking shall disclose its Scope 3, Use of sold products emissions, according to the following:
- (a) integrated undertakings shall separately report Scope 3, Use of sold products emissions for each segment of the value-chain in which they operate in and in accordance to Application Requirement 13;

(b) service undertakings shall report the emissions associated with the use of the products they have sold to undertakings in the oil and gas value chain;

39. The undertaking operating in the Services segment shall disclose Scope 3, Leased assets.

40. When disclosing its Scope 3, Leased assets, according to the paragraph 39 of this Disclosure Requirement, service undertakings shall report the emissions associated with the use of the products they have leased or rented to undertakings in the oil and gas value chain.

Disclosure Requirement related to ESRS E1-9 – Potential financial effects from material physical and transition risks and potential climate-related opportunities

41. When disclosing according to the sector agnostic E1-9 – Potential financial effects from material physical and transition risks and potential climate related opportunities, the undertaking shall disclose potential financial effects from managing its climate-risks and opportunities.

42. Upstream undertakings shall disclose how the management of climate change-related risks and opportunities affect future fair value:

(a) due to changes in the investment levels dedicated to the development of oil and gas (proven) reserves, as well as disclose changes in the level of investment level;

(b) oil and gas production volumes for the current reporting period and projected volumes for the next five years;

43. Midstream undertakings shall disclose how climate change-related risks and opportunities affect:

(a) the development of new infrastructure projects related to fossil fuel transportation and distribution;

(b) potential write-offs and early closure of existing assets.

Disclosure Requirement OG 2-E1 - CO₂ abatement technologies

44. The undertaking shall disclose for its activities related to CO₂ abatement technologies.

45. The objective of this Disclosure Requirement is to provide an understanding of the extent to which the undertaking is implementing GHG abatement technologies at scale on its own sources or providing it as a service to others. It seeks also to understand how issues related to potential liabilities for stored CO₂ leakage is being dealt and reported under the scopes defined in DR E1-6.

46. The undertaking shall disclose amounts of CO₂ abated from emissions sources through carbon capture technologies, disaggregated by:

(a) Transferred inside to the undertaking's organization (e.g. as a CCS service) and:

i. Used for internal processes (e.g. synthetic fuels);

ii. Permanently sequestered (e.g. CCS technologies);

iii. Transported to another organization (e.g. CO₂ transfer through pipeline).

(b) Captured inside the undertaking's organization and:

i. Transferred outside to the undertaking's organization (e.g. sold as product);

ii. Used for internal processes (e.g. synthetic fuels, enhanced oil recovery);

iii. Permanently sequestered (e.g. CCS technologies).

47. When disclosing the information on GHG abated under paragraph 46, the undertaking shall report:
- (a) Total CO₂ captured and stored for the reporting period;
 - (b) Total CO₂ stored at the end of the reporting period;

Disclosure Requirement OG 3-E1 - GHG emission intensity of energy

48. The undertaking shall disclose its GHG emission intensity per unit of energy produced.
49. The objective of this disclosure is to provide a benchmark metric of full life-cycle GHG impacts of the company activity on a physical intensity basis and how it compares with expected values for the global economy under 1.5°C compatible GHG mitigation scenarios and how it is likely to change under current investment and/or transition plans.
50. An undertaking operating upstream shall:
- (a) disclose the GHG intensity of its energy production (CO₂e/unit of energy);
 - (b) demonstrate how the GHG intensity of its energy production as well as its trajectory are aligned with the objectives of limiting global warming to 1.5°C;
 - (c) by reference to its transition plan for climate change mitigation (DR E1-1) and to its climate change mitigation action plan (DR E1-4), provide an explanation of how its CAPEX and financial resource allocation decision will influence the direction of the GHG intensity of its produced energy.
51. Undertakings operating refineries shall disclose their CO₂/CWT (Complexity Weighted Tonne).
52. Undertakings operating within the oil and gas sector and producing hydrogen shall disclose the GHG intensity of its overall hydrogen production.
53. Undertakings with marketing activities shall:
- (a) disclose GHG intensity of the final energy it sells (CO₂e/unit of energy);
 - (b) demonstrate how the GHG intensity of its energy sales as well as its trajectory are aligned with the objectives of limiting global warming to 1.5°C;
 - (c) by reference to its transition plan for climate change mitigation (DR E1-1) and to its climate change mitigation action plan (DR E1-4), provide an explanation of how its CAPEX and financial resource allocation decision will influence the direction of the GHG intensity of its energy sales.
54. The undertaking shall explain the accounting for GHG emissions from its associates, joint ventures, unconsolidated subsidiaries and joint arrangements that are not structured through an entity (i.e., these entities and arrangements can be part of the undertaking's value chain), namely considering AR44 to DR E1-6 – Gross scope 1,2,3 and Total GHG emissions.

E2: Pollution prevention and control

Disclosure Requirement related to ESRS E2-1 – Policies related to pollution

55. When disclosing according to the sector agnostic E2-1 – Policies related to pollution, the undertaking shall disclose its strategy and policies for avoiding, managing and minimising the impact of pollutants release to air, water, soil and organisms from:
- (a) normal operation of its facilities and equipment through its policies on pollution prevention and control, namely its maintenance practices and how it systematically identifies and implements Best Available Technologies.
 - (b) industrial hazards and accidents.

56. In disclosing its policies related to pollution according to the sector agnostic E2-1 – Policies related to pollution the undertaking shall explain how they address:
- (a) spills and loss of containment events for hydrocarbon and other chemicals used in operations;
 - (b) tailings from oil sands mining and in particular the existence of any tailing ponds or dams;
 - (c) substances of concern and substances of very high concern, namely:
 - i. their use and disposal;
 - ii. how substances of concern and very high concern are defined, e.g. in accordance to any international standard, law, authoritative list or criteria used;
 - iii. the approach for setting discharge limits for substances of concern or very high concern.
 - (d) maintenance and inspection frequency of critical infrastructure, in particular by disclosing:
 - iv. percentage of natural gas pipelines inspected
 - v. percentage of hazardous liquid pipelines inspected

Disclosure Requirement related to ESRS E2-2 – Pollution action plans and resources

57. When disclosing according to the sector agnostic E2-2 – Pollution action plans and resources, the undertaking shall disclose its pollution-related action plans and the resources allocated to their implementation, with regards to:
- (a) normal operation of its facilities and equipment through its policies on pollution prevention and control, namely its maintenance practices and how it systematically identifies and implements Best Available Technologies.
 - (b) industrial hazards and accidents.
58. In disclosing its action plans and resources related to pollution the undertaking shall explain in particular actions and resources related to the prevention, mitigation and management of impacts derived from:
- (a) air pollution, including the nitrogen oxides (NO_x), sulphur oxides (SO_x), volatile organic compounds (VOC), particulate matter (PM), carbon monoxide (CO), ozone-depleting substances (ODS), and other air emissions with an environmental impact;
 - (b) oil spills and hydrocarbon substances discharged to soil and water;
 - (c) tailings from oil sands mining;
 - (d) use and disposal of substances of concern or substances of very high concern;
 - (e) other types of pollutants from the upstream and downstream value chain.
59. The undertaking shall specify to which layer in the mitigation hierarchy an action plan and resources can be allocated to:
- (a) avoid pollution including any phase out of materials/compounds that have a material negative impact (prevention of pollution at source);
 - (b) reduce pollution (minimisation), including by meeting BAT requirements in the future;
 - (c) restore and regenerate ecosystems where pollution occurred (control of the impacts both from regular activities and incidents);

- (d) transform ecosystem e.g. through technological, economic, institutional, and social factors and changes in underlying values and behaviours;
- (e) meet enforcement requirements or future compliance needs such as meeting BAT requirements in the future, or any phase out of materials/compounds; and
- (f) address failures to comply with Do-No-Significant-Harm criteria for pollution prevention and control according to the EU Taxonomy Regulation and its Delegated Acts.

60. The undertaking shall provide case studies or examples of significant spills, as determined by the undertaking.

Disclosure Requirement related to ESRS E2-3 – Targets related to pollution

61. When disclosing according to the sector agnostic E2-3 – targets related to pollution, the undertaking shall disclose the pollution-related targets it has adopted with regards to the prevention and control of:
- (a) tailings from oil sands mining;
 - (b) hydrocarbon spills and hydrocarbon substances discharged to soil and water;
 - (c) substances of concern and substances of very high concern;
 - (d) other types of pollutants from the upstream and downstream value chain.
62. The description of targets shall contain the information on whether the targets adopted are mandatory (based on legislation, including future legislation), or voluntary.

Application Requirement to ESRS E2-4 – Pollution of air, water and soil

63. When providing information under ESRS E2, paragraph 25 to 27, in addition to the pollutants referred to in ESRS E2 AR21 to AR26, the undertaking shall disclose emissions of the following pollutants that have occurred during the reporting period:
- (a) With regards to the air emissions, volumes (in tonnes) of:
 - i. particulate matter (PM10);
 - ii. hydrogen sulphide (H2S);
 - iii. carbon monoxide (CO);
 - iv. other air emissions with an environmental impact, if applicable.
 - (b) With regards to the water emissions:
 - i. volumes (in tonnes) of: 1) hydrocarbon spills to water; 2) tonnes of other chemical discharges to water.
 - ii. number of hydrocarbon spill events to water;
 - iii. average and distribution of hydrocarbon content (in mg/l) in discharged water for all measurements taken throughout reporting year;
 - iv. Number of incidents of non-compliance with discharge limits related to substances of concern or very high concern.
 - (c) With regards to the soil emissions:
 - i. volumes (in tonnes) of: 1) hydrocarbon spills to soil; 2) other chemical discharges to soil.
 - ii. number of hydrocarbon spill events to soil.
64. The undertaking shall also disclose the:
- (a) Number of reportable pipeline incidents, percentage of significant incidents;

- (b) Number of accident releases from rail transportation;
 - (c) Number of non-accident releases from rail transportation;
 - (d) Percentage of engines in service that meet Tier 4 compliance for non-road diesel engine emissions.
65. The undertaking shall report on the number of underground storage tanks, including the number of underground storage tanks releases requiring clean-up.

Disclosure Requirement OG 4-E2 Industrial risk management

66. The undertaking shall disclose its methods and tools used for risk assessment and risk management of industrial hazards.
67. The objective of this disclosure requirement is to understand how the undertaking prevents and manages industrial risks.
68. The undertaking shall disclose the following information on process safety events, as defined by the International Association of Oil & Gas Producers (OGP) as a total number of Tier 1 process safety events, including:
- a. number of Tier 1 process safety events reported separately for each major business activity, such as refining or upstream;
 - b. provide qualitative descriptions of any significant process safety events that occurred during the reporting year, including the undertakings' response and lessons learned to prevent recurrence;
 - c. Explaining the review assessment and management of process safety risks.

Disclosure requirement OG 5-E2 – Hydraulic fracturing

69. The undertaking shall disclose the information regarding the use of hydraulic fracturing wells.
70. The purpose of this Disclosure Requirement is to provide visibility on the use of a particular technique which can cause significant water pollution.
71. The undertaking shall disclose the following indicators:
- (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 deteriorated compared to a baseline;
 - (c) cubic meters of hydraulic fracturing fluid used

E3: Water and Marine Resources

Disclosure Requirement to ESRS E3-1 – Policies related to water and marine resources

72. When disclosing the information required in sector agnostic Disclosure Requirement E3-1 on policies and targets related to water and marine sources, the undertakings shall include in the narrative its interactions with water as a shared resource, particularly in water-stressed areas and where conflicts between different water uses may emerge.

Disclosure Requirement OG 6-E3 – Water withdrawal

73. **The undertaking shall disclose the freshwater and other water withdrawal for its activities and from what sources the water is withdrawn from.**
74. The objective of this disclosure requirement is to understand the dependency of the undertaking on water withdrawals, as well as potential significant impacts water withdrawals can have on local water resources and use.
75. The undertakings shall disclose the following indicators:
- (a) Total volume of water withdrawn from all areas in thousands of cubic meters (10^3m^3), including a breakdown by:
 - i. Total freshwater divided by:
 - 1. surface water;
 - 2. groundwater.
 - ii. Other water:
 - 1. seawater;
 - 2. produced water and recycled process wastewater;
 - 3. third-party water.
 - (b) Total volume of water withdrawn from water stressed areas in thousands of cubic meters (10^3m^3), including a breakdown by:
 - i. Total Freshwater divided by:
 - 1. surface water;
 - 2. groundwater.
 - ii. Other water:
 - 1. seawater;
 - 2. produced water and recycled process wastewater;
 - 3. third-party water.
 - (c) Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.

Disclosure Requirement OG 7-E3 – Water discharge

76. **The undertaking shall disclose the volume, the destination, and the impacts of the water it discharges to the environment or exports to third-parties; and the actions it may have taken to improve the quality of the water discharged.**
77. The purpose of this Disclosure Requirement is to provide understanding of the impact of the undertakings' water discharges on local water resources and use.
78. The undertakings shall disclose the following indicators:
- (a) Total water discharged in thousands of cubic meters (10^3m^3) and a breakdown of this total by the following types of destination, if applicable:
 - i. Freshwater bodies, divided by:
 - 1. surface water;
 - 2. groundwater.
 - ii. Other water bodies, divided by:
 - 1. seawater;
 - 2. exported to a third-party for treatment and discharge to the environment;

3. exported to a third-party for re-cycling and re-use.
- (b) Total volume of water discharged to water stressed areas in thousands of cubic meters (10^3m^3), including a breakdown by:
 - i. freshwater;
 - ii. other water.
- (c) volume in thousands of cubic meters (10^3m^3) of produced water and process wastewater discharged.
- (d) the number of occasions on which discharge limits were exceeded
- (e) any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.

Disclosure Requirement OG 8-E3 – Marine resources

79. The undertaking which are active in the upstream and services subsectors shall provide information on marine resources-related activity indicators.
80. The purpose of this Disclosure Requirement is to provide an understanding of the extent in which undertaking is involved in exploration of oil and gas deposits in the ocean areas.
81. The undertaking active in the activity segments listed in paragraphs 79 shall disclose its ocean footprint by providing information on the (i) total number and (ii) total area of the exploitation sites located at the oceans.

E4: Biodiversity and Ecosystems

Disclosure Requirement related to ESRS E4-2 – Policies related to biodiversity and ecosystems

82. When disclosing its policies implemented to manage its material impacts, risks and opportunities related to biodiversity and ecosystems, the undertaking with upstream and midstream operations shall describe if its policies address:
 - (a) a phase-out of existing operations and/or stopping operational investments in areas of key biodiversity value, as well as in the artic. In case such policies are not in place, the undertaking shall disclose the policy provisions to minimize biodiversity and ecosystem impacts from current operations in these areas, if they exist
 - (b) the achievement of no net loss or a net gain to biodiversity on operational sites; and whether these commitments apply to existing and future operations and to operations beyond areas of high biodiversity value.
 - (c) decommissioning of operational sites at their end-of-life, including the systematic implementation of site restoration plans.

Disclosure Requirement related to ESRS E4-3 – Actions and resources related to biodiversity and ecosystems

83. When describing biodiversity and ecosystems-related actions and the resources allocated to their implementation according to the sector agnostic Disclosure Requirement E4-3, the undertaking shall explain how the application of the mitigation hierarchy, if applicable, has resulted in:
 - (a) areas protected through avoidance measures or offset measures;
 - (b) areas restored through on-site restoration measures or offset measures.

84. The undertaking shall provide examples or case studies of operating areas where it has put biodiversity management activities and adaptive management in place.
85. The undertaking shall describe its decommissioning activities where it relates to biodiversity and if a site restoration plan exists or is foreseen for each of its operational sites. If this is not the case, the undertaking shall disclose the list of sites for which there is no existing or foreseen site restoration plan.
86. The undertaking shall describe its decommissioning activities and if a site restoration plan exists or is foreseen for each of its operational sites. If this is not the case, the undertaking shall disclose the list of sites for which there is no existing or foreseen site restoration plan.

Disclosure Requirement related to ESRS E4-4 – Targets related to biodiversity and ecosystems

87. When disclosing according to the sector agnostic Disclosure Requirement E4-4 – Targets related to biodiversity and ecosystems, the undertaking shall disclose targets related to:
 - (a) minimising average disturbed acreage per oil and per gas well site;
 - (b) minimising acreage disturbed and maximising percentage of impacted area restored;
 - (c) avoidance and mitigation measures that relate to projects and operations in or near protected areas within the priority sites for biodiversity conservation.

Disclosure Requirement related to ESRS E4-5 – Impact metrics related to biodiversity and ecosystems change

88. The undertaking shall report metrics related to material impacts resulting in biodiversity and ecosystem change, following ESRS E4-5, per each operational site [TO BE DISCUSSED] located in or that has material impacts on key biodiversity areas.
89. The objective of this Disclosure Requirement is to provide an overview of the undertaking's operational sites [TO BE DISCUSSED] situated in or that have material impacts on key biodiversity areas and to provide information on impacts on biodiversity arising from its operational sites [TO BE DISCUSSED] located in or near these areas.
90. The undertaking shall include metrics related to:
 - (a) average disturbed acreage per oil and per gas well site differentiating between on-shore and off-shore wells;
 - (b) acreage disturbed and percentage of impacted area restored differentiating between on-shore and off-shore operations;
 - (c) total number of IUCN Red List species and national conservation list species with habitats in areas affected by the operations of the organization, by level of extinction risk (Critically endangered / endangered / vulnerable / near threatened / least concern).
91. The undertaking shall explain their process of identifying the sites with protected conservation status or endangered species habitat in a way that is easy to understand and replicate.
92. The undertaking shall disclose the percentage of proved reserves that are located in or near high-risk areas.

E5: Resource use and circular economy

Disclosure Requirement related to ESRS E5-1 – Policies related to resource use and circular economy

93. When reporting on the policies related to resource use and circular economy according to the E5-1 sector agnostic disclosure, the undertaking shall disclose how its strategy and policies to manage material impacts, risks and opportunities address the following areas:
- (a) carrying of decommissioning activities of its offshore and onshore assets, facilities and infrastructures
 - (b) revalorising by-products and waste, with a focus on drilling waste (muds and cuttings, scale, sludges and tailings)

Disclosure Requirement related to ESRS E5-2 – Action plans and resources in relation to resource use and circular economy

94. When reporting on the action plans and resources in relation to resource use and circular economy according to DR E5-2, the undertaking shall disclose its action plans and the resources allocated with regards to:
- (a) Minimising and managing the drilling waste (muds and cuttings), scale, sludges and tailings
 - (b) Decommissioning activities for offshore and onshore assets,
95. The undertaking should provide the number, location, status and brief description of decommissioning and associated remediation projects, as per Disclosure Requirement OG1 List of operational and decommissioned sites and infrastructure, that it considers to be relevant, and the total financial provision made by the undertaking for decommissioning offshore and / or onshore projects and decommissioning facilities and infrastructures.

Disclosure Requirement related to ESRS E5-3 – Targets related to resource use and circular economy

96. When reporting on the targets related to resource use and circular economy according to the E5-3 sector agnostic disclosure, the undertaking shall describe the resource use and circular economy targets related to:
- (a) Minimising waste (muds and cuttings), scale, sludges and tailings
 - (b) Decommissioning activities for offshore and onshore assets

Disclosure Requirement related to ESRS E5-4 – Resource inflows

97. When reporting on the resource inflows according to the E5-4 sector agnostic disclosure, the undertaking shall include the tonnes of materials recovered from decommissioning activities of offshore and onshore assets,

Disclosure Requirement related to ESRS E5-5 – Resource outflows

98. When reporting on the resource outflows according to the E5-5 sector agnostic disclosure, the undertaking shall include the sector-specific outflows specified in paragraphs 99 to 101, on the reporting period.
99. The undertaking shall disclose the volume (in cubic meters) and percent of crude oil and gas that is traded for the following activities:
- (a) petrochemicals;

(b) petroleum products;

(c) unknown

100. The undertaking shall also include the following sector-specific outflows, on the reporting period:

(a) tonnes oil recovered from oil spills;

(b) tonnes of drilling waste (muds and cuttings);

(c) tonnes of scale and sludges;

(d) tonnes of tailings;

(e) tonnes of decommissioned materials;

101. The information provided under the paragraph 100 should be reflecting the total weight of the outflow material in its original state, without data modification, such as reporting on a "dry weight" basis.

S1: Own workforce

Disclosure Requirement related to ESRS S1-14 – Health and safety indicators

102. The undertaking shall provide qualitative descriptions of:
- (a) any significant process safety events that occurred during the reporting year;
 - (b) the actions taken in response;
 - (c) lessons learned to prevent recurrence;
 - (d) its regular review process of the assessment and management of process safety risks.
103. The undertaking shall describe the management systems used to integrate a culture of safety throughout the exploration and production lifecycle.

Disclosure Requirement OG 9-S1 – Working hours

104. **The undertaking shall disclose the percentage of its own workers that exceed 48 hours of work per week over the applicable reference period.**
105. The principle to be followed under this Disclosure Requirement is to provide an understanding of whether the undertaking respects the thresholds established by the EU and ILO standards on weekly working hours (48 hours per week over a reference period) to protect own workers' physical and mental health and their safety and work-life balance.
106. The disclosure required shall include the percentage of own workers (as full-time equivalents) working more than 48 hours per week, including overtime.

S3: Affected communities

Disclosure Requirement related to ESRS S3-1 – Policies related to affected communities

107. When disclosing according to the sector agnostic S3-1 – Policies related to affected communities, the undertaking shall describe its policies, programmes and procedures for land acquisition and involuntary resettlement, including engagement processes and

practices with affected communities, including any international standards that it has used as reference.

108. The undertaking shall list, quantify and / or describe cases of involuntary resettlement required by its activities (where governments permit disclosure).
109. The undertaking shall describe its approach to providing remediation to local communities or individuals subject to involuntary resettlement, such as the process for establishing compensation for loss of assets or other assistance to improve or restore standards of living or livelihoods

Disclosure Requirement related to ESRS S3-2 - Processes for engaging with affected communities about impacts

110. When disclosing according to the sector agnostic S3-2 – Processes for engaging with affected communities about impacts, the undertaking shall describe the approach to identifying stakeholders within local communities and to engaging with them.
111. The undertaking shall disclose the percentage of operations with implemented local community engagement, impact assessments, and/or development programs, including the use of:
 - (a) social impact assessments, including gender impact assessments, based on participatory processes;
 - (b) environmental impact assessments and ongoing monitoring;
 - (c) public disclosure of results of environmental and social impact assessments;
 - (d) local community development programs based on local communities' needs;
 - (e) stakeholder engagement plans based on stakeholder mapping;
 - (f) broad based local community consultation committees and processes that include vulnerable groups;
 - (g) works councils, occupational health and safety committees and other worker representation bodies to deal with impacts;
 - (h) formal local community grievance processes.
112. The undertaking shall 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.
113. The undertaking shall list any collective or individual rights that it has identified that are of particular concern for local communities (including vulnerable groups).

Disclosure Requirement related to ESRS S3-3 - Processes to remediate negative impacts and channels for affected communities to raise concerns

114. When disclosing according to the sector agnostic S3-3 – Processes to remediate negative impacts and channels for affected communities to raise concerns, the undertaking shall report the number and type of grievances from local communities identified, including:
 - (a) the number and / or percentage of sites with grievance mechanisms or similar conflict resolution procedures; and
 - (b) data on the types of concerns raised via engagement or grievance mechanisms, supported by qualitative information on how it has addressed concerns, including elevation to corporate management, where appropriate;
 - (c) percentage of the grievances that were addressed and resolved;

- (d) percentage of the grievances that were resolved through remediation
115. The undertaking shall describe its policies, approach and / or mechanisms that aim to secure non-retaliation, non-discrimination and confidentiality when addressing grievances. This might extend to access to third-party independent grievance mechanisms.
116. The undertaking shall describe impacts on the health of local communities as a result of exposure to pollution caused by operations or use of hazardous substances.
117. The undertaking shall disclose examples of significant indirect impacts, positive and negative impacts, as well as the significance of indirect impacts in the context of external benchmarks and stakeholder priorities, such as national and international standards, protocols, and policy agendas.

Disclosure Requirement related to ESRS S3-4 - Taking action on material impacts, and approaches to mitigating material risks and pursuing material opportunities related to affected communities, and effectiveness of those actions and approaches

118. When disclosing according to the sector agnostic S3-4 – Taking action on material impacts, and approaches to mitigating material risks and pursuing material opportunities related to affected communities, and effectiveness of those actions and approaches, the undertaking shall disclose its approaches to taking action on affected communities and to mitigating material risks and pursuing material opportunities
119. The objective of this Disclosure Requirement is to provide insight on the interactions with, programmes developed, percentage of top management recruited from the affected communities and significant investment on infrastructure and services supported. activities.
120. The undertaking shall disclose [for each operational site/for the key operational sites [TO BE DISCUSSED]:
- (a) the percentage of top management that are recruited from the local community;
 - (b) the percentage of the procurement budget spent on suppliers local to that operation;
 - (c) the extent of development of significant infrastructure investments (e.g. transport links, utilities) and services (e.g. community social facilities, health, and welfare centres) supported and whether these investments and services are commercial, in-kind, or pro bono engagements.
121. As per paragraph 112, the undertaking shall specify which of the actions that are planned or underway, address negative material impacts on affected communities that stem from the undertaking's impacts on biodiversity. It shall include a description of how the impacts on biodiversity have negatively affected the access of these communities to genetic resources, and the consequences of this restriction on their health. [TO BE DISCUSSED]
122. The undertaking shall also disclose [for each operational site/for the key operational sites [TO BE DISCUSSED]:
- (a) the number and description of identified incidents of violations involving the rights of indigenous peoples;
 - (b) its interactions with indigenous peoples, including but not limited to means of communication, language used, frequency;
 - (c) where applicable, the co-ownership programs developed for indigenous peoples and local communities. This shall include equity shares acquired by communities and their value;
 - (d) 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.

Disclosure Requirement OG 10-S3 - Impact metrics on affected communities

123. **The undertaking shall disclose, for each operational site/for key operational sites [TO BE DISCUSSED] impact metrics on affected communities.**
124. The objective of this Disclosure Requirement is to enable an understanding of the impacts of the undertaking on affected communities.
125. The undertaking shall:
- (a) disclose the number and describe impacts on the health of local communities as a result of exposure to pollution caused by operations or use of hazardous substances
 - (b) report the number and type of grievances from local communities identified, including:
 - i. percentage of the grievances that were addressed and resolved;
 - ii. percentage of the grievances that were resolved through remediation
 - iii. whether it has caused or contributed to involuntary resettlement or where such a resettlement is ongoing; in this case the undertaking shall disclose the operational site involved. It shall also describe measures taken to ensure that livelihoods and human rights have been preserved and valuation methods used and how legitimate tenure rights holders have been involved in determining valuation.

Disclosure Requirement OG 11-S3 - Operations in or near areas of conflict

126. **The undertaking shall disclose its reserves located in or near areas of conflict**
127. The objective of this disclosure is to understand the undertaking asset exposure to areas of active conflict and how it may drive impacts on society.
128. The entity shall disclose the percentage of net proved reserves that are located in or near areas of conflict.

Disclosure Requirement OG 12-S3 - Reserves in or near indigenous land

129. **The undertaking shall disclose its reserves located in or near indigenous peoples' land**
130. The objective of this disclosure is to understand the undertaking asset exposure to lands where particular rights of indigenous peoples should be upheld and respected and how the undertaking may impact the rights of indigenous peoples.
131. The entity shall disclose the percent of net proved reserves and net probable reserves that are located in or near areas that are considered to be indigenous peoples' land.
132. The undertaking shall also report a list of the locations of operations where indigenous peoples are present or affected by activities of the undertaking.

Disclosure Requirement OG 13-S3 - Respect for human rights

133. **The undertaking shall describe its approach to ensuring respect for human rights.**
134. The objective of this disclosure is to understand the potential impacts of the undertaking's operations on human rights of local communities.
135. The undertaking shall describe the procedures on working with public or private security providers and how those relationships are managed, whenever public or private security providers are used to guarantee the safety of own employees.
136. The undertaking shall disclose the number, describe and list any collective or individual human rights that the organization has identified that are of particular concern for local

- communities' stakeholders identified in DR related to SBM-2 - Interests and views of stakeholders.
137. The undertaking shall disclose the number and describe the identified incidents of violations involving the rights of indigenous peoples.
138. The undertaking shall disclose the number and describe impacts on the health of local communities as a result of exposure to pollution caused by operations or use of hazardous substances.

G1: Business conduct

Disclosure requirements related to ESRS G1-5 – Political influence and lobbying activities

139. When disclosing according to the sector agnostic G1-5 – Political influence and lobbying activities, the undertaking shall disclose its participation in public policy development and lobbying.
140. The objective to this Disclosure Requirement is to: i) understand how the undertaking works at promoting its views in politics; ii) understand the size and how an undertaking attempts to influence politics; iii) the undertakings stance on climate change and understand how this effects its political engagement.
141. The undertaking shall disclose:
- (a) a description of its stance on significant issues that are the focus of its participation in public policy development and lobbying.
 - (b) any differences between these positions and its stated policies, goals, or other public positions.
 - (c) whether it is a member of, or contributes to, any representative associations or committees that participate in public policy development and lobbying, including:
 - i. the nature of this contribution;
 - ii. any differences between the undertaking's stated policies, goals, or other public positions on significant issues related to climate change, and the positions of the representative associations or committees.
 - (d) a description of its approach to public policy development and its lobbying activities specifically on the topic of climate change.
142. The undertaking shall also explain how its corporate communication aligns with globally established targets related to climate neutrality or nature positive economy and how it ensures that its sustainability communication is clear, transparent, substantiated and specific. If this communication relates to climate change, or pollution, or water and marine resources, or biodiversity and ecosystems, or resource use and circular economy the undertaking shall explain how it ensures consistency with the undertaking's disclosures under [draft] ESRS E1 Climate Change or [draft] ESRS E2 Pollution or [draft] ESRS E3 Water and Marine Resources or [draft] ESRS E4 Biodiversity and Ecosystems or [draft] ESRS E5 Resource use and Circular Economy respectively.
143. The undertaking shall also disclose the number of opened cases before courts or other competent authorities within the reporting year that concern misleading commercial practices or public communication related to sustainability as well as the number of cases that were closed during the reporting year and if they ended with the undertaking being fined or found in breach.

Disclosure requirements related to ESRS G1-6 – Payment practices

144. When disclosing under the sector agnostic G1-6 – Payment practices, the undertaking shall disclose its approach to contract transparency, including:

- (a) whether contracts and licenses with local governments are made publicly available and, if so, where they are published;
- (b) if contracts or licenses with local governments are not publicly available, the reason for this and actions taken to make them public in the future.

Disclosure Requirement OG 14-G1 - Sales to, support received from and payments made to governments

145. **The undertaking shall disclose its sales to, support received from, and payments made to governments.**
146. The objective of this Disclosure Requirement is to provide transparency on the economic relationships with the governments.
147. The undertaking shall disclose:
- (a) the oil and gas sales to government organizations, including for oil and gas extraction, trade, handling, transport and export, and including sales to third parties appointed by the state on their behalf;
 - (b) the fee or payment for the sales to government organizations (or third parties acting on the government's behalf);
 - (c) various types of materials purchased, names of the buying undertaking(s), and the recipient of the fee;
 - (d) a breakdown of the payments to governments levied at the project-level, by project and revenue streams [granularity TO BE DISCUSSED];
 - (e) the monetary value of financial assistance received by the undertaking from any government during the reporting period, split [by country/ by key country [TO BE DISCUSSED];
 - (f) whether, and the extent to which, any government is present in the shareholding structure and in which country and, in case of a state-owned company the financial relationship between the government and the undertaking;
 - (g) all payments to governments relating to oil and gas upstream, midstream and downstream activities, trade and transport from all concerned / affected countries, in accordance with jurisdictional legislation. Undertakings shall disclose all relevant payments in line with the principals outlined in the Extractive Industry Transparency Initiatives (EITI).

Disclosure Requirement OG 15-G1 – Suppliers assessed for social impacts

148. The undertaking shall disclose the outcome of its assessment of its suppliers for social impacts. The objective of this Disclosure Requirement is to understand the degree of actual and potential negative social impacts in the supply chain of the undertaking and to understand to which extent the undertaking uses social criteria in selecting its suppliers.
149. The undertaking shall disclose:
- (a) the number of suppliers assessed for fundamental human rights and decent working conditions.
 - (b) the percentage of new suppliers that were screened using social criteria.
 - (c) significant actual and potential negative social impacts identified in the supply chain, namely:
 - i. operations and suppliers in which workers' rights to exercise freedom of association or collective bargaining may be violated or at significant risk either in terms of:
 - 1. type of operation (such as manufacturing plant) and supplier;

2. countries or geographic areas with operations and suppliers considered at risk.
 3. measures taken by the organization in the reporting period intended to support rights to exercise freedom of association and collective bargaining.
- (d) the number of suppliers identified as having significant actual and potential negative social impacts.
 - (e) percentage of suppliers identified as having significant actual and potential negative social impacts with which improvements were agreed upon as a result of the assessment; and
 - (f) percentage of suppliers identified as having significant actual and potential negative social impacts with which relationships were terminated as a result of assessment and why.

Disclosure Requirement OG 16-G1 – Anti-competitive

150. **The undertaking shall provide information on any publicly announced investigation into or litigation concerning possible anti-competitive behaviour it is facing during the reporting period.**
151. The principle to be followed under this disclosure requirement is to provide transparency on publicly announced investigations into or litigation concerning possible anti-competitive behaviour of the undertaking that are ongoing during the reporting period.
152. The disclosure required by paragraph 150 shall include the following information:
 - (a) investigations into and decisions relating to violations of anti-trust and monopoly legislation where the undertaking (or its subsidiaries) was named as a participant by a competent authority;
 - (b) the number of new, on-going or finalised legal action during the reporting period regarding anti-competitive behaviour;
 - (c) the outcome of these legal proceedings against the undertaking.

Disclosure Requirement OG-17 [MIN-12-G1] – Number of data breaches, policies and practices relating to cybersecurity

153. **The undertaking shall disclose the:**
 - (a) number of data breaches;
 - (b) percentage involving classified or restricted information;
 - (c) number of operational sites;
 - (d) how the potential for future cyber security breaches is being prevented.
154. The objective this Disclosure Requirement is to provide an overview of the number of data breaches and who is impacted by those data breaches and to gain an understanding of the undertaking's policies regarding cybersecurity and management of risks.
155. The undertaking shall also describe its policies and practices relating to cybersecurity threats or attacks.
156. The undertaking shall also describe its approach to security management for existing operations, projects planned or underway and new locations for business activities, including assessment of threats, vulnerabilities and risks.

Appendix A: Defined terms

Term	Description
Accidental releases	An unintentional release of a hazardous substance affecting human health, land, vegetation, waterbodies, and groundwater, that is caused by an unpredicted accident.
Active conflict	Areas identified by the presence of armed conflict, widespread violence, including violence generated by criminal networks, or other risks of serious and widespread harm to people. Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars.
Biosphere Reserves recognised within the framework of UNESCO's Man and the Biosphere (MAB) Programme	<p>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.</p> <p>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.</p>
Community development program	A plan that details actions to minimise, mitigate or compensate for adverse social and/or economic impacts, and/or to identify opportunities or actions to enhance positive impacts of a project on the community.
Cyber security	Cyber security relates to the practice of protecting electronic data, computer systems, servers, networks, mobile devices, tablet devices etc. from malicious criminal attacks, theft of sensitive data, and damage to IT systems.
Decommissioning activities	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1) Proven reserves are such estimated quantities of mineral deposits, at a specific date, as analysis of geologic engineering data demonstrates with reasonable certainty to be recoverable in the future under the same economic and operational conditions. 2) Developed oil and gas reserves are reserves of any category that can be expected to be recovered: <ol style="list-style-type: none"> (i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.
Drilling waste	<ol style="list-style-type: none"> 1) The main types of wastes that are generated during well construction and operation activities, both onshore and offshore: 1) drill cuttings and associated fluids; 2) interfacial mixtures. 2) Oil and gas exploration and production well installation operations typically comprise three stages: Well Drilling and Completion Stage Wastes Produced: <ul style="list-style-type: none"> – Drilling Fluids (drilling muds) – Cuttings

Oil and Gas WP V2 Clean

	<ul style="list-style-type: none"> - Produced Water <p>Well Stimulation Stage (hydraulic fracturing)</p> <p>Wastes Produced:</p> <ul style="list-style-type: none"> - Fracturing Fluid Returns - Produced Water <p>Well Production Stage</p> <p>Wastes Produced:</p> <ul style="list-style-type: none"> - Produced Water
Energy recovery	The use of combustible waste as a means to generate energy through direct incineration with or without other waste but with recovery of the heat.
Enhanced Oil Recovery (EOR)	<p>1) Enhanced oil recovery, also called tertiary recovery, is the extraction from an oil field of crude oil that has not already been retrieved through the primary or secondary oil recovery techniques.</p> <p>2) Three major categories of EOR have been found to be commercially successful to varying degrees:</p> <p><u>Thermal recovery</u>, which involves the introduction of heat such as the injection of steam to lower the viscosity, or thin, the heavy viscous oil, and improve its ability to flow through the reservoir. Thermal techniques account for over 40 percent of U.S. EOR production, primarily in California.</p> <p><u>Gas injection</u>, which uses gases such as natural gas, nitrogen, or carbon dioxide (CO₂) that expand in a reservoir to push additional oil to a production wellbore, or other gases that dissolve in the oil to lower its viscosity and improves its flow rate. Gas injection accounts for nearly 60 percent of EOR production in the United States.</p> <p><u>Chemical injection</u>, which can involve the use of long-chained molecules called polymers to increase the effectiveness of waterfloods, or the use of detergent-like surfactants to help lower the surface tension that often prevents oil droplets from moving through a reservoir</p>
Flaring	<p>Gas flaring is the burning of natural gas associated with oil extraction. When gas needs to be disposed of, it may be flared (burned off), or vented (released without being burned).</p> <p>Flaring converts gas to CO₂, while venting releases CH₄ directly to the atmosphere.</p>
Fugitive emissions	<p>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.</p>
High-risk area	<p>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.</p>
Hydraulic fracturing fluid	<p>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.</p>
Hydrocarbon spill	<p>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).</p>
Near	<p>A facility, site or asset is near a certain area, if it can have a direct material impact on that area, irrespective of the actual distance that separates the two.</p>

Oil and Gas WP V2 Clean

Near miss	An unplanned incident in which no property or environmental damage or personal injury occurred, but where damage or personal injury easily could have occurred but for a slight circumstantial shift.
Non-accidental releases	An unintentional release of a hazardous substance affecting human health, land, vegetation, waterbodies, and groundwater that is not caused by collision, leakage, or other accident.
Throughput	The amount of product that moves through a particular facility during a given period of time.
Other water	Surface water that is not fresh water, and water from other sources
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.
Proved reserves	Proved reserves (or P1) are the amount of oil or natural resources contained under a piece of land with a 90% or greater probability of profitable extraction.
Recycled and remanufactured materials	Waste materials that have been reprocessed or treated by means of production or manufacturing process and made into a final product or made into a component for incorporation into a product.
Reserves	Part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination.
Resources	“Undiscovered, technically recoverable resources” estimated to exist based on geologic knowledge and theory.
Scale and sludges	<p>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 produced water as its temperature and pressure change. Sludge generally consists of oily, loose material often containing silica compounds, but may also contain large amounts of barium.</p> <p>Scales are normally found on the inside of piping and tubing. American Petroleum Institute found that the highest concentrations of radioactivity are in 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:</p> <ul style="list-style-type: none"> – 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.
Site	It is the area occupied by assets controlled financially or operationally by an undertaking. This definition of site includes operational facilities and supporting areas, linear structures (such as pipelines, roads or rail lines), as well as concession areas under development or production (e.g. oil and gas or mining concessions).
Surface water	Surface water, including rainwater, water from wetlands, rivers and lakes. Water that is naturally occurring water on the Earth's surface in ice sheets, ice caps, glaciers, icebergs, bogs, ponds, lakes, rivers and streams, and has a low concentration of dissolved solids.
Tailings	Oil sands tailings are a mixture of water, sand, fine silts, clay, residual bitumen and lighter hydrocarbons, inorganic salts and water-soluble organic compounds.
Tier safety events	<p>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</p> <p>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.</p>

Oil and Gas WP V2 Clean

	<p>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.</p>
Underground storage tank	<p>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.</p>
Undeveloped reserves	<p>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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>
Venting	<p>Emissions from various processes in a facility and routed to the atmosphere as a result of planned and selected operational solutions. Emissions usually happens through dedicated pipe systems where the natural gas is discharged at a safe place. Venting (direct emissions) as a solution may be selected for several reasons; safety issues, high levels of inert gases (mainly nitrogen) in the gas, pressure conditions of the facility or purely cost-related preferences (very expensive to eliminate/reduce emissions relative to the amount of emissions) or a combination of this. In many cases venting can be avoided by good design. The options may be recycling of gas or flaring.</p>

Appendix B: Application Requirements

This Appendix is an integral part of the proposed [draft] ESRS Oil and Gas. It supports the application of the requirements set for in paragraphs AR.1 to AR.69 and has the same authority as the other parts of the [draft] Standard.

ESRS 2 related requirements

Application Requirement related to ESRS 2-SBM1-1 - Market position, strategy, business model(s) and value chain

AR 2. The EITI categories of quality assurance are used to disclose alignment with how the principles are being implemented locally. The category “other” refers to countries for which the assessment is suspended or to countries for which the compliance has yet to be assessed.

Application Requirement related to ESRS 2 – SBM 2 Interests and views of stakeholders

AR 3. When disclosing how the undertaking engages with its stakeholders in compliance with ESRS 2 SBM-2, the undertaking shall describe how it incorporates the OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractives Sector, and in particular how it engages with affected stakeholders. Furthermore, the undertaking shall disclose the following:

- (a) the approach to identifying stakeholders within local communities;
- (b) a description of the vulnerable groups that the organisation has identified within local communities by mine site.

Application Requirement related to ESRS 2 – SBM 3 Material impacts, risks and opportunities with their interaction with strategy and business model(s)

AR 4. When disclosing the undertaking’s impacts on its own workforce and the local community, it shall consider, where applicable, the undertaking’s policies, actions and targets to help own workers and non-employee workers manage the adverse impacts arising from the closure of its operational site(s).

AR 5. The undertaking shall consider the labour transition plans in place to help workers manage the transition to a post-closure phase of operations (e.g., redeployment, assistance with redeployment, resettlement, and redundancy payments, training and skills programmes).

AR 6. The undertaking shall also consider the collaborative efforts, projects and programs that are set up to manage the socio-economic impact of closure and restoration programs and disclose these.

AR 7. The undertaking shall also consider how it engages with worker and other stakeholders in informing the closure plans, as well as notice periods regarding closure.

Application Requirement to ESRS 2-GOV4 Statement on sustainability due diligence

AR 8. When disclosing a mapping of the information provided in its sustainability statements about the sustainability due diligence process, the undertakings operating in the areas of severe human rights risks shall also map the core elements from the OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector in addition to the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises mentioned in the agnostic disclosure.

AR 9. The undertaking shall include procurement in its mapping as well as and environmental factors. This may be presented in a table in a similar form to the table below.

Core elements	Paragraphs in the sustainability matters
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 E1 related requirements

Application Requirement to ESRS E1-1 – Transition plan for climate change mitigation

- AR 10. When disclosing according to this sectors' Disclosure Requirement to ESRS E1-1 – Transition plan for climate change mitigation, the undertaking may further detail these categories to align OPEX and CAPEX plans with the EU taxonomy.
- AR 11. When disclosing information on sector agnostic Disclosure Requirement E1-1[16(d)] on potential locked-in GHG emissions from the undertaking's assets and products, undertakings shall consider this to be the emissions potential of proven (P1) and probable (P2) reserves of their oil and gas assets and shall calculate this potential considering the recommendations in [Russel, Stephen (2016) "A recommended methodology for estimating and reporting the potential greenhouse gas emissions from fossil fuel reserves", World Resource Institute, 2016]

Application Requirement to ESRS E1-4 – Targets related to climate change mitigation and adaptation

- AR 12. When disclosing the information required under DR E1-4 on targets related to climate change mitigation, the undertaking shall consider disclosing the mandatory legislation the goals and targets are aligned with or contribute to.

Application Requirement to ESRS E1-6 – Gross scope 1,2,3 and Total GHG emissions

- AR 13. When disclosing its Scope 3, Use of sold products emissions, in accordance to this sector Disclosure Requirement to ESRS E1-6 – Gross scope 1,2,3 and Total GHG emissions, paragraph 38:
- (a) upstream undertakings shall consider 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 involved 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 note it separately;
 - (b) midstream undertakings shall consider the CO2 emissions of the throughput through their owned or operated facilities during the reporting period, even if the oil and gas products are not owned by the undertaking;
 - (c) downstream undertakings shall consider 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;
- AR 14. Service undertakings may report facilitated emissions, this is, the emissions associated with the oil and gas their products have facilitated the production of.

ESRS E2 - related requirements

Application Requirement to ESRS E2-2 – Pollution action plans and resources

- AR 15. The undertaking shall consider disclosing what technologies does it use to manage its impact on air quality, such as technologies that remove or treat combustion emissions in operations or fuel products.
- AR 16. When providing the case studies or examples of significant spills, as determined by the company according to the paragraph 60 of this sector specific Disclosure Requirements, the undertaking may consider descriptions of the following:
- (a) the criteria on establishing the significance;
 - (b) the cause of the spill and volume of spill recovered;
 - (c) the undertaking's response measures to address immediate and long-term effects;
 - (d) any secondary effects on local communities and stakeholders;
 - (e) the undertaking's stakeholder engagement;
 - (f) incident investigation findings, if available, including root-causes; and
 - (g) actions that were taken to prevent recurrence and share lessons.

Application Requirement OG 4-E2 Industrial risk management

- AR 17. When disclosing under paragraph 68 of the Disclosure Requirement OG 4-E2 Industrial risk management, the undertaking may also provide metrics on:
- a. Number of Tier 2 process safety events, reported separately for each major business activity, such as refining or upstream.
 - b. Describe how you assess, monitor and review process safety and well control risk control barriers.
 - c. Describe your approach and application of Tier 3 and 4 metrics
 - d. Describe how you incorporate cultural and human factors into process safety, including leadership, risk awareness and employee development.
 - e. State any commitments or targets you have 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.

ESRS E3 - related requirements

Application Requirement to ESRS E3-1 – Policies related to water and marine resources

- AR 18. When disclosing the information required in sector agnostic Disclosure Requirement E3-1 on policies and targets related to water and marine sources, the undertakings may include in its narrative 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 with water stress
- (e) An overview of water use across the organization’s value chain
- (f) A list of specific catchments where the organization causes significant water-related impacts.

AR 19. When compiling the information about water-stressed area, the reporting organization shall consider using publicly available and credible tools and methodologies for assessing water stress in an area.

AR 20. When disclosing the indicators of water discharge, undertakings may present the internal standards they may have established for the management of water discharge-related impacts. The undertakings 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

Application Requirement to OG 6-E3 – Water withdrawal

AR 21. The undertaking may follow the table shown below when disclosing information required in DR OG8-E3 – Water Withdrawals:

Water withdrawals	From water stressed areas	Total
Fresh water		
Surface water		
Groundwater		
Other water		
Seawater		
Produced water and recycled process wastewater		
Third-party water		

Application Requirement to OG 7-E3 – Water discharge

AR 22. The undertaking may follow the table shown below when disclosing information required in DR OG 7-E3 – Water Discharge:

Water discharge	From water stressed areas	Total
Fresh water		
Surface water	NA	
Groundwater		
Other water		
Seawater	NA	

Exported to a third-party for treatment and discharge to the environment		
Exported to a third-party for recycling and re-use by a third party		

ESRS E4 - related requirements

Application Requirement related to ESRS E4-2 - Policies related to biodiversity and ecosystems

AR 23. When disclosing its policies implemented to manage its material impacts, risks and opportunities related to biodiversity and ecosystems, the undertakings with upstream and midstream operations may include how the undertaking applies the mitigation hierarchy and international biodiversity standards in its operational planning, from early concept through to decommissioning

Application Requirement related to ESRS E4-3 - Actions and resources related to biodiversity and ecosystems

AR 24. 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 25. In the description of its site restoration plans, the undertaking shall consider including:

- (a) A baseline assessment of the local environment pre-activities, which should include:
 - i. The affected ecosystems types;
 - ii. The affected ecosystem size in hectares;
 - iii. The affected ecosystem initial condition;
 - iv. The affected species names;
 - v. The affected species extinction risk;
 - vi. A list of the significant ecosystem services and beneficiaries that will be affected by the undertaking's operations;
 - vii. An explanation of how the ecosystem services and beneficiaries will be affected;
 - viii. Standards, methodologies, assumptions use to make this assessment.
- (b) A description of the risks for biodiversity and ecosystems;
- (c) A description of real impacts on biodiversity and ecosystems, which should include:
 - i. the size in hectares and the type of natural ecosystem converted since the cut off date or reference date;
 - ii. the current state of the ecosystem;
 - iii. the current state of species.

- iv. standards, methodologies, assumptions use to make this assessment.
- (d) A description of the goal of the restoration plan (converting the area to a safe and stable condition, restoring the area to pre-mining conditions as closely as possible, near-natural restored ecosystem, reinstating ecosystem functionality or land productivity, etc.)
- (e) A description of restoration activities and their implementation;
- (f) Monitoring performance of the restoration activities;
- (g) Results of the restoration activities.
- (h) Additional actions to offset negative impacts and transformative actions, including additional conservation actions by the undertaking.

AR 26. To ensure long-term quality of the restoration process, the undertaking shall consider:

- (a) Describing their legacy policy on restoration;
- (b) Describing the quality of the restoration plan in relation to local communities;
- (c) Long-term liabilities, describing the continuation of the restoration plan if the area is sold or leaves the undertaking's possession.

AR 27. The undertaking may also provide metrics such as:

- (a) number of projects contributing to forestry maintenance, educational activities, research and development to reduce biodiversity impact and land use, conservation measures (planting trees);
- (b) 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.

Application Requirements related to ESRS E4-5 - Impact metrics related to biodiversity and ecosystems change

AR 28. When disclosing according to the sector agnostic Disclosure Requirement E4-5, the undertaking shall include an exhaustive list of operational sites [TO BE DISCUSSED] owned, leased, managed in or near, or that have material impacts on key biodiversity areas and include per each operational site [TO BE DISCUSSED]:

- (c) a description of the material impacts on biodiversity its exploration has or has had, thereby specifying the impacts to the affected habitats and ecosystems;
- (d) the total number of IUCN Red list species and national conservation list species with habitats in areas affected by the operations of the organisation and this by level of extinction risk;
- (e) the approach used, for each of these operational sites [TO BE DISCUSSED], to ensure respect for conservation status or endangered species habitat;
- (f) the percentage of proved and probable reserves in or near sites with protected conservation status or endangered species habitat.

AR 29. The undertaking shall disclose significant impacts on biodiversity with reference to affected habitats and ecosystems. The undertaking shall consider impacts deriving from both direct impact on land and sea use; indirect impacts; as well as impacts from industrial hazards (e.g. spills, other risk events).

AR 30. When disclosing the percentage of proven reserves that are located in or near high-risk areas according to the paragraph 92, the percentage of proven reserves shall be calculated as the amount of proven reserves located in or near areas of high risk divided by the total amount of proven reserves

- AR 31. 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 32. The undertaking may discuss 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 discussion for reserves located in areas with no official designation of high biodiversity value but that present high biodiversity or ecosystem services risks.
- AR 33. 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 IUCN's definition of a protected area: "A protected area is a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values"
 - (g) These sites may be listed in the World Database of Protected Areas (WDPA) and mapped on Protected Planet
- AR 34. 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 35. 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 36. 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 S1 - related requirements

Application Requirements to OG 9-S1 – Working hours

- AR 37. An undertaking shall use the following formula to calculate the percentage of FTEs (full-time equivalent) working more than 48 hours per week:

$$\frac{\text{Total number of FTEs working more than 48 hours per week over a reference period}}{\text{Total number of FTEs}} \times 100$$

- AR 38. To determine the total number of FTEs working more than 48 hours per week, an undertaking shall calculate the average working hours for each seven-day period, including overtime, worked per FTE over the applicable statutory reference period, according to the following guidelines:

- (a) the applicable statutory reference period is established by the applicable national legislation and / or collective agreement. If it exceeds four months, the undertaking shall specify the reference period used for calculation purposes and with which national law or collective agreement it is aligned;
- (b) the periods of paid annual leave and the periods during which the employment or work relationship is suspended due for instance, to sick leave or temporary lay-off, shall not be included or shall be neutral in the calculation of the average working hours;
- (c) working hours shall be calculated based on 60 minutes per hour and considering hours actually worked;
- (d) for FTEs below 1 (i.e. workers that do not work full time) the 48 hours shall be reduced accordingly in the calculations; and
- (e) hours actually worked is defined as the time persons spent in the performance of activities that contribute to the production of goods and services during a specified reference period. This includes:
 - i. hours actually worked during normal periods of work;
 - ii. time worked in addition to hours worked during normal periods of work, and generally paid at higher rates than normal rates (overtime);
 - iii. time spent at the place of work on work such as the preparation of the workplace, repairs and maintenance, preparation and cleaning of tools, and the preparation of receipts, time sheets and reports;
 - iv. time spent at the place of work waiting or standing by for such reasons as lack of supply of work, breakdown of machinery or accidents, or time spent at the place of work during which no work is done but for which payment is made under a guaranteed employment contract;
 - v. time corresponding to short rest periods at the workplace, including tea and coffee breaks.
- (f) It excludes:
 - i. hours paid for but not worked, such as paid annual leave, paid public holidays, paid sick leave, maternity / paternity leave;
 - ii. meal breaks;
 - iii. time spent on travel from home to work and vice versa.

AR 39. An undertaking shall use the total number of FTEs during the reporting period.

AR 40. Where applicable, an undertaking shall describe significant changes in data or calculation methodology compared to the previous year's submission. For a given change, the undertaking should explain if the data disclosed deviated from the unit or format requested.

ESRS S3 - related requirements

Application Requirement to ESRS S3-4 - Taking action on material impacts, and approaches to mitigating material risks and pursuing material opportunities related to affected communities, and effectiveness of those actions and approaches

AR 41. The Undertaking shall calculate the percentage of senior management hired from local communities using data on full-time employees.

AR 42. Top management hired from the local community includes those individuals either born or who have the legal right to reside indefinitely (such as naturalized citizens or permanent visa

holders) in the same geographic market as the operation. The geographical definition of 'local' can include the community surrounding operations, a region within a country, or a country.

AR 43. When disclosing under paragraph 115, the undertaking shall consider the principles in the Nagoya Protocol and the Montreal Agreement. The undertaking may refer to how the actions that are planned or underway are aligned to these frameworks.

Application Requirement to OG 11-S3 – Reserves in or near areas of conflict

AR 44. The percentage of proved reserves shall be calculated as the amount of proved reserves located in or near areas of conflict divided by the total amount of proved reserves.

AR 45. Active conflict is defined according to the Uppsala Conflict Data Program (UCDP) definition as: a conflict, both state-based and non-state, is deemed to be active if there are at least 25 battle-related deaths per calendar year in one of the conflict's dyads

AR 46. Reserves shall be considered to be in or near an area of active conflict if they are located in the same country as the active conflict.

AR 47. If the undertaking can demonstrate that a 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.

AR 48. If reserves are located in a country, region, or state adjacent to an active 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 49. 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 proved and probable.

AR 50. Reserves of oil products shall be reported in millions of barrels.

AR 51. Reserves of natural gas products shall be reported in millions of standard cubic feet.

Application Requirements to OG 12-S3 - Reserves in or near indigenous land

AR 52. The percent of net proved reserves and net probable reserves are to be calculated and reported separately.

AR 53. The percentage of proved reserves shall be calculated as the amount of proved reserves located in or near indigenous land divided by the total amount of proved reserves.

AR 54. The percentage of probable reserves shall be calculated as the amount of probable reserves located in or near indigenous land divided by the total amount of probable reserves.

AR 55. Indigenous lands are considered those occupied by people who self-identify as indigenous, per Article 33 of the United Nations Declaration on the Rights of Indigenous Peoples and the International Labour Organization Convention No. 169, and likely have one or more of the following characteristics based on the working definition of "Indigenous Peoples" adopted by the United Nations:

- (a) Historical continuity with pre-colonial and/or pre-settler societies;
- (b) Strong link to territories and surrounding natural resources;
- (c) Distinct social, economic, or political systems;
- (d) Distinct language, culture, and beliefs;
- (e) Form non-dominant groups of society;
- (f) Resolve to maintain and reproduce ancestral environments and systems as distinctive peoples and communities

- AR 56. For the purposes of this disclosure, "near" is defined as within 5 kilometres of the recognized boundary of an area considered to be indigenous land to the location of the undertaking's proven and probable reserves.
- AR 57. 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 proved and probable.
- AR 58. Reserves of oil products shall be reported in millions of barrels.
- AR 59. Reserves of natural gas products shall be reported in millions of standard cubic feet.

Application Requirement to OG 13-S3 – Respect for human rights

- AR 60. When describing the procedures and management of public or private security providers, the undertaking shall refer to training provided on company 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.

ESRS G1 - related requirements

Application Requirements to ESRS G1-2 – Management of relationships with suppliers

- AR 61. Suppliers local to an operation are undertakings operating and registered in the same geographic market as the operation. The undertaking shall consider "local" to be the specific country market where its operation is located. The geographical definition of 'local' can include the community surrounding operations, a region within a country, or a country. The undertaking shall report any deviations from the suggested definition of "local".
- AR 62. The Undertaking may describe how the procurement process helps or encourages its first level of suppliers and contractors to source locally.
- AR 63. The Undertaking may use case studies to illustrate how its local procurement policies, programmes and procedures are implemented locally, including results and lessons learned.
- AR 64. The Undertaking may describe further activities designed to assist supplier development, such as engagement in collaborative groups (e.g. with other companies or chambers of commerce) to promote local enterprise and economic development.

Application Requirements to ESRS G1-5 - Political influence and lobbying activities

- AR 65. When reporting in accordance to ESRS G1-5 - Political influence and lobbying activities, the undertaking shall calculate financial political contributions in compliance with national accounting rules, where these exist.

Application Requirements to OG 14-G1 - Sales to, support received from, and payments made to governments

- AR 66. When reporting in accordance to paragraph 147 the undertaking shall include:
- (a) volumes and types of oil and gas purchased;
 - (b) full names of the buying undertaking(s) and the recipient of the payment;
 - (c) payments made for the purchase.
- AR 67. When reporting in accordance to paragraph 147d) the undertaking shall include the following revenue streams in the breakdown:
- (a) The host government's production entitlement;

Oil and Gas WP V2 Clean

- (b) National state-owned company production;
- (c) Royalties;
- (d) Dividends;
- (e) Bonuses (e.g., signature, discovery, and production bonuses);
- (f) License fees, rental fees, entry fees; and other considerations for licenses or concessions;
- (g) Any other significant payments and material benefits to government.

AR 68. The undertaking shall also report the value of any thresholds that have been applied and any other contextual information necessary to understand how the project-level payments to governments reported have been compiled. When reporting in accordance to paragraph 147d shall include:

- (a) tax relief and tax credits;
- (b) subsidies.
- (c) funds received through the Just Transition Mechanism of the EU;
- (d) 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;
- (i) other financial benefits received or receivable from any government for any operation.

AR 69. The undertaking shall also reference sources of disclosure for its payments to host governments, where reporting is subject to governmental legal or policy mandates, or EITI requirements.

Appendix C: Sustainability matters

ENVIRONMENT

E1: Climate

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 lightning 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, such as CO₂ and CH₄ 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 CO₂ 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.

E2: Pollution

Pollution of air

Air emissions from oil and gas operations may contribute to local or regional impacts and affect human health, flora 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 sector activities are relevant to consider and may include, but are not limited to SO_x, NO_x, H₂S, VOCs, 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

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 impacts on 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 experienced water stress.

Pollution of soil

Activities within the sector can result in release of harmful substance, vibration or other contaminant into sand, silts, shells and gravel, as well as the underlying sediments and groundwater resources. Such pollutants can include 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. Consequent pollution incidents and catastrophes may result in severe environmental and social consequences and trigger significant financial liabilities and reputational damage.

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 sector's value chain. Hydrocarbon and other types of pollution may negatively impact development of soils and plants and cause severe effects on marine and other living organisms, impacting 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 oil and gas 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 REACH regulation due to their human health and environmental impact.

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.

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. 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 and undertaking circularity measures that aim at reusing or recycling materials (for example, recycling of construction materials, oil regeneration, recycling of plastic waste).

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. Opportunities aimed to enhance circular economy can include prevention of post-consumer waste, design to recycle and all the activities to increase material recirculation and minimise disposal.

Waste

Regular activities, 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, scale or sludges, which may contain high amounts of pollutants and carry the risks of environment contamination. Waste streams that cannot be reduced, or diverted from disposal, are typically stored, treated or disposed through various methods. Undertaking's infrastructure and approach to waste management is therefore critical to avoid severe environmental impacts.

SOCIAL

S1: Own workforce

Working conditions

The sector's continuous operation results in many jobs having complex shift patterns, including long shifts and/or night shifts, which may create health and safety risks for the workforce. Examples of work that may result in extended shifts include fly-in fly-out arrangements (FIFO) to operational sites or works at marine vessels. Irregular work shifts and schedules, time spent away from families, and potentially limited communication facilities can further impact workers' physical, psychological, and/or social health. The job security is also a concern for the sector, linked to potential job loss due to oil price drops or changing business models, including work automation. Organizations in the sector can support workers by planning for a just transition and developing their skills to improve employability in other sectors.

Equal treatment and opportunities for all

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.

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. Some oil and gas resources are in countries where collective bargaining and trade unions are restricted. Regardless of location, limitations of collective bargaining and trade unions may significantly limit worker representations and result in unfair treatment. In specific conditions, organizations in the oil and gas sector may employ alternative means of worker representation and engagement. Large group in the sector is represented by contract workers, often excluded from collective bargaining agreements and facing less favourable employment and remuneration conditions.

S2: Workers in the value chain

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.

Equal treatment and opportunities for all

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, color, 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.

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: Affected communities

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.

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.

Particular rights of indigenous communities

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: Consumers and/or end-users

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.

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. Entities 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.

Social inclusion of consumers and/or end-users

Through its activity related to the fuels production, the sector is in the value chain of mobility, which in some areas can have an impact on social inclusion.

GOVERNANCE

G1: Business conduct

Corporate culture

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.

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.

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.

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.

Risk management and internal control processes

Risk management is viewed as the process of identifying possible significant incidents to the undertaking, and implementing processes to reduce and / or eliminate material impacts. Such tools should be used in extractive industries to prevent and / or mitigate significant incidents from occurring.

Appendix D: NACE codes

- C.19.20 Manufacture of refined petroleum products
- G.46.71 Wholesale of solid, liquid and gaseous fuels and related products
- 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.