

Oil And Gas

ESG Evaluation Key Sustainability Factors

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Ratings

Approach

Our key sustainability factors identify the most material environmental and social risks assessed in our ESG Evaluation. We assess the materiality¹ of those risks across the industry's value chain and reflect them in the weighting of our environmental and social factors. We also provide the quantitative indicators² used to assess a company's performance relative to its industry peers on each of those factors. For further information, please refer to our ["Environmental, Social, And Governance Evaluation: Analytical Approach."](#)

Scope

The oil and gas sector includes companies operating in the following subsectors: exploration and production (E&P; upstream) and integrated companies, oilfield services, midstream, and refining and marketing (downstream).

Material Environmental Risks

Oil and gas companies are exposed to the following material environmental risks across their value chain:

- **Indirect emissions from hydrocarbon combustion:** The sector's most material environmental impact is indirect and stems from the use of its end-products (scope 3 emissions). Oil and gas combustion contributes to global greenhouse gas (GHG), and sulfur and nitrogen oxide emissions.
- **Direct environmental impact from operations:** The E&P processes entail a high possibility of spills and leaks, notably for offshore drillers, as well as water use and contamination, particularly for shale oil and gas producers using hydraulic fracturing. Production, transportation, and processing also generate GHG emissions and air pollutants, and may affect local biodiversity. Other environmental effects associated with the industry include water consumption by refiners for processing and cooling purposes, and land use for transportation and distribution networks, as well as production.





Environmental Factors: Weighting And KPIs

The weighting of our environmental factors varies by sub-sector. We also use different quantitative performance indicators to inform our opinion of an entity's management of its environmental impact relative to peers in the same sub-sector. Our opinion under our ESG Evaluation is also informed by qualitative indicators such as climate-related policy and commitments.

Factor	E&P and integrated	Oilfield services	Midstream	Refining and marketing
 Greenhouse gas emissions	40%	40%	40%	40%
 Waste and pollution	30%	30%	30%	30%
 Land use and biodiversity	15%	15%	20%	10%
 Water	15%	15%	10%	20%





E&P and integrated

The higher weighting of GHG emissions and waste and pollution reflects our view that the impact of pollution has been materially greater than other environmental factors in the past, and our expectation that the transition away from fossil fuels, in particular oil, will likely become increasingly important.

Factor	Weight	Key performance indicators	Other performance indicators
 Greenhouse gas emissions	40%	<ul style="list-style-type: none"> – Scope 1 emissions intensity (tons of carbon dioxide equivalent [tCo2e], by output) – Scope 2 emissions intensity (tCo2e, by output) – % of gas in the production mix 	<ul style="list-style-type: none"> – Flaring intensity (tCo2e, by output) – Methane intensity (tCo2e, by output) – Energy intensity (by output) – % of energy sourced from renewable sources – Scope 3 emissions (tCo2e)
 Waste and pollution	30%	<ul style="list-style-type: none"> – % of offshore in the production mix – Hydrocarbon spills (number and volume) – Sulfur oxide, nitrogen oxide, and volatile organic compound intensity (tons, by output) 	<ul style="list-style-type: none"> – Wastewater volumes (cubic meters [m3] by output) – % of waste that is recycled – % of hazardous waste
 Land use and biodiversity	15%	<ul style="list-style-type: none"> – % of production or assets from areas with protection or conservation status 	<ul style="list-style-type: none"> – % of production or assets from areas with threatened, vulnerable, endangered, and critically endangered species
 Water	15%	<ul style="list-style-type: none"> – % of hydraulic fracking in the production mix – % of production from water-stressed regions – Water intensity (m3, by output) 	<ul style="list-style-type: none"> – % of water that is recycled





Oilfield services

We apply similar weights and use similar quantitative performance indicators as the E&P and integrated segment. The service providers are present at all stages of the E&P cycle, from exploration to decommissioning, and their exposure to environmental risks broadly mirrors that of E&P companies.

Factor	Weight	Key performance indicators	Other performance indicators
 Greenhouse gas emissions	40%	<ul style="list-style-type: none"> – Scope 1 emissions intensity (tons of carbon dioxide equivalent [tCo2e], by output) – Scope 2 emissions intensity (tCo2e, by output) – % of gas in the production mix 	<ul style="list-style-type: none"> – Flaring intensity (tCo2e, by output) – Methane intensity (tCo2e, by output) – Energy intensity (by output) – % of energy sourced from renewable sources – Scope 3 emissions (tCo2e)
 Waste and pollution	30%	<ul style="list-style-type: none"> – % of offshore in the production mix – Hydrocarbon spills (number and volume) – Sulfur oxide, nitrogen oxide, and volatile organic compound intensity (tons, by output) 	<ul style="list-style-type: none"> – Wastewater volumes (cubic meters [m3] by output) – % of waste that is recycled – % of hazardous waste
 Water	15%	<ul style="list-style-type: none"> – % of hydraulic fracking in the production mix – % of production from water-stressed regions – Water intensity (m3, by output) 	<ul style="list-style-type: none"> – % of water that is recycled
 Land use and biodiversity	15%	<ul style="list-style-type: none"> – % of production or assets from areas with protection or conservation status 	<ul style="list-style-type: none"> – % of production or assets from areas with threatened, vulnerable, endangered, and critically endangered species





Midstream

The primary environmental risks facing the midstream sector are GHG emissions – mostly methane, and pollution from pipeline leaks as well as its indirect exposure to end users of natural gas and oil. Therefore, we apply a higher weighting to GHG emissions and waste and pollution than to the other factors. Our weighting of land use and biodiversity reflects the impact on land and biodiversity impact of new pipeline projects. Water is comparatively less material in this segment due to more limited use.

Factor	Weight	Key performance indicators	Other performance indicators
 Greenhouse gas emissions	40%	<ul style="list-style-type: none"> – Scope 1 emissions intensity (tons of carbon dioxide equivalent [tCo2e], by kilometer [km] of pipeline) – Scope 2 emissions intensity (tCo2e, by km of pipeline) – % of gas in the energy mix 	<ul style="list-style-type: none"> – Methane intensity (tCo2e, by km of pipeline) – Energy intensity (by km of pipeline) – % of energy sourced from renewable sources – Scope 3 emissions (tCo2e)
 Waste and pollution	30%	<ul style="list-style-type: none"> – Hydrocarbon spills (number and volume) 	<ul style="list-style-type: none"> – % of waste that is recycled – % of hazardous waste
 Land use and biodiversity	20%	<ul style="list-style-type: none"> – % of production or assets from areas with protection or conservation status 	<ul style="list-style-type: none"> – % of production or assets from areas with threatened, vulnerable, endangered, and critically endangered species
 Water	10%	<ul style="list-style-type: none"> – Water intensity (cubic meters, by km of pipeline) 	<ul style="list-style-type: none"> – % of water that is recycled

Refining and marketing

We apply a higher weighting to GHG emissions because climate change is the main driver of new regulation and potential compliance costs in the sector. The similarly higher weighting of our waste and pollution factor reflects the pollution risks associated with refining activities. Our weighting of water reflects the segment's typically higher exposure to water availability risks than the rest of the oil and gas industry, given its reliance on water for cooling purposes.

Factor	Weight	Key performance indicators	Other performance indicators
 Greenhouse gas emissions	40%	<ul style="list-style-type: none"> – Scope 1 emissions intensity (tons of carbon dioxide equivalent [tCo2e], by output) – Scope 2 emissions intensity (tCo2e, by output) – % of production by fuel type: gasoline, diesel, jet fuel, fuel oil, asphalt/bitumen, and biofuels 	<ul style="list-style-type: none"> – Methane intensity (tCo2e, by output) – Energy intensity by output – % of energy sourced from renewable sources – % of crude oil and fossil feedstock sourced by region – Scope 3 emissions (tCo2e)
 Waste and pollution	30%	<ul style="list-style-type: none"> – Hydrocarbon spills (number and volume) 	<ul style="list-style-type: none"> – % of waste that is recycled – % of hazardous waste
 Water	20%	<ul style="list-style-type: none"> – % of production from water-stressed regions – Water intensity (cubic meter, by output) 	<ul style="list-style-type: none"> – % of water that is recycled
 Land use and biodiversity	10%	<ul style="list-style-type: none"> – Breakdown of biofuels by feedstock (for example, palm oil, used oils, and other waste products such as forest by-products) – % of production or assets from areas with protection or conservation status 	<ul style="list-style-type: none"> – % of certified palm oil or crops – % of production or assets from areas with threatened, vulnerable, endangered, and critically endangered species





Material Social Risks

Oil and gas companies are exposed to the following material social risks across their value chain:

- **Safety in operations:** The health and safety of employees, contractors, and local communities remains a primary concern, especially for extraction and refining sites. Safety risks are particularly acute in offshore operations, especially in deep and ultra-deep waters, as well as in harsh environments.
- **Risk to social license to operate:** Human rights, community engagement, and talent attraction are also material risks for the industry, since many production sites are located in conflict zones, regions with lower social standards, and remote areas.





Social Factors: Weighting And KPIs

The weighting of our social factors varies by sub-sector. We use relatively similar indicators across the sub-sectors to inform our opinion of an entity's management of its social impacts relative to peers in the same sub-sector, although some may vary. Our opinion under our ESG Evaluation is also informed by qualitative indicators. Examples of qualitative indicators include the quality and effectiveness of an entity's policy on safety and community engagement.

Factor	E&P and integrated	Oilfield services	Midstream	Refining and marketing
 Safety management	40%	40%	35%	45%
 Communities	25%	20%	35%	25%
 Workforce and diversity	25%	25%	15%	15%
 Customer engagement	10%	15%	15%	15%





E&P and integrated

In line with the rest of the industry, safety performance largely drives the social profile of entities in this segment. This is because, first, safety incidents have historically had a great financial and reputational impact on these entities. Second, ensuring the safety of the workforce has co-benefits for labor and community relations. We do not view customer engagement as material given the commoditized nature of the market.

Factor	Weight	Key Performance Indicators	Other performance indicators
 Safety management	40%	<ul style="list-style-type: none"> – Lost time injury frequency rate – Number of fatalities per millions of hours worked 	<ul style="list-style-type: none"> – Total recordable injury frequency rate – Occupational injury frequency rate
 Communities	25%	<ul style="list-style-type: none"> – % of production from conflict zones – Number and cost of project delays and cancellations as a result of community opposition – % of employees from local communities 	<ul style="list-style-type: none"> – % of own operations, Tier 1 suppliers, and joint ventures assessed for human rights issues – Cash contributions, employee volunteering, and in-kind giving converted into reporting currency
 Workforce and diversity	25%	<ul style="list-style-type: none"> – Voluntary/involuntary turnover rate (%) – Average amount spent per full-time equivalent on training and development – % of women in the total workforce, junior and senior management positions, and in revenue-generating functions 	<ul style="list-style-type: none"> – Benefits offered to workforce – Gender pay gap
 Customer engagement	10%	<ul style="list-style-type: none"> – Offtake agreements in place 	





Oilfield services

Our higher weighting of safety management reflects its importance in ensuring good labor and customer relations. We weight customer engagement somewhat higher in this segment than in E&P because the service is not commoditized to the same degree.

Factor	Weight	Key Performance Indicators	Other performance indicators
 Safety management	40%	<ul style="list-style-type: none"> – Lost time injury frequency rate – Number of fatalities per millions of hours worked 	<ul style="list-style-type: none"> – Occupational injury frequency rate
 Workforce and diversity	25%	<ul style="list-style-type: none"> – Voluntary/involuntary turnover rate (%) – Average amount spent per full-time equivalent on training and development – % of women in the total workforce, junior and senior management positions, and in revenue-generating functions 	<ul style="list-style-type: none"> – Benefits offered to workforce – Gender pay gap
 Communities	20%	<ul style="list-style-type: none"> – % of operations located in conflict zones – Number and cost of project delays and cancellations as a result of community opposition – % of employees from local communities 	<ul style="list-style-type: none"> – % of own operations, Tier 1 suppliers, and joint ventures assessed for human rights issues – Cash contributions, employee volunteering, and in-kind giving converted into reporting currency
 Customer engagement	15%	<ul style="list-style-type: none"> – Customer satisfaction index 	<ul style="list-style-type: none"> – Market share (%)





Midstream

Ensuring the safety of storage and transportation facilities largely drives the social profile of entities in this segment. We also apply a higher weighting to communities, given the importance of local acceptance of fixed assets that are often spread out and the financial impact of project delays and cancellations historically.

Factor	Weight	Key Performance Indicators	Other performance indicators
 Safety management	35%	<ul style="list-style-type: none"> – Lost time injury frequency rate – Number of fatalities per millions of hours worked 	<ul style="list-style-type: none"> – Occupational injury frequency rate
 Communities	35%	<ul style="list-style-type: none"> – Number and cost of project delays and cancellations as a result of community opposition – % of assets located in conflict zones 	<ul style="list-style-type: none"> – % of own operations, Tier 1 suppliers, and joint ventures assessed for human rights issues – Cash contributions, employee volunteering, and in-kind giving converted into reporting currency
 Workforce and diversity	15%	<ul style="list-style-type: none"> – Voluntary/involuntary turnover rate (%) – Average amount spent per full-time equivalent on training and development – % of women in the total workforce, junior and senior management positions, and in revenue-generating functions 	<ul style="list-style-type: none"> – Benefits offered to workforce – Gender pay gap
 Customer engagement	15%	<ul style="list-style-type: none"> – Customer satisfaction index 	

Refining and marketing

The same rationale applies as to the E&P and integrated segment. Customer engagement is more material than for the E&P segment, especially for marketing activities, which are highly competitive and focus increasingly on customer experience as a result.

Factor	Weight	Key Performance Indicators	Other performance indicators
 Safety Management	45%	<ul style="list-style-type: none"> – Lost time injury frequency rate – Number of fatalities per millions of hours worked 	<ul style="list-style-type: none"> – Total recordable injury frequency rate – Occupational injury frequency rate
 Workforce and diversity	25%	<ul style="list-style-type: none"> – Voluntary/involuntary turnover rate (%) – Average amount spent per full-time equivalent on training and development – % of women in the total workforce, junior and senior management positions, and in revenue-generating functions 	<ul style="list-style-type: none"> – Benefits offered to workforce – Gender pay gap
 Customer Engagement	15%	<ul style="list-style-type: none"> – Customer satisfaction index 	<ul style="list-style-type: none"> – Offtake agreements in place – Market share (%)
 Communities	15%	<ul style="list-style-type: none"> – % of production from conflict zones 	<ul style="list-style-type: none"> – % of own operations, Tier 1 suppliers, and joint ventures assessed for human rights issues – Cash contributions, employee volunteering, and in-kind giving converted into reporting currency

Submit Feedback

You can submit your feedback [online](#), by [email](#), or telephone.

Please specify which sector you are commenting on when submitting feedback.

We would particularly like to hear from you regarding:

1. Which risks are missing or not relevant?
2. Which KPIs are missing, could be enhanced, or are not relevant?
3. What views do you have on the suggested factor weights for the environmental and social analysis?
4. Do you have additional feedback(s) on this document?

Endnotes

¹ Events and issues are material for the ESG Evaluation when in our view they could meaningfully affect the entity's business operations, cash flows, legal or regulatory liabilities, access to capital, reputation, or relationships with key stakeholders and society more generally, either directly or through its value chain (upstream or downstream).

² We are mindful that some may be produced using different methodologies and scopes.

Related Research

- [The ESG Risk Atlas: Sector And Regional Rationales And Scores](#), July 22, 2020
- [Our Updated ESG Risk Atlas And Key Sustainability Factors: A Companion Guide](#), July 22, 2020
- [Environmental, Social, And Governance Evaluation: Analytical Approach](#), June 17, 2020
- [How We Apply Our ESG Evaluation Analytical Approach: Part 2](#), June 17, 2020
- [ESG Evaluation: Repsol S.A.](#), Nov. 25, 2019

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