MORNINGSTAR® | SUSTAINALYTICS

Material Risk Engagement
2025 Annual Report



Material Risk Engagement promotes and protects long-term value by engaging with high-risk companies on financially-material ESG issues.

Table of Contents

Table of Contents (cont.)

Engagement Approach

Morningstar Sustainalytics’ Material Risk/Strategy & Risk Engagement engages with high-risk companies on the material ESG issues with the greatest levels of unmanaged risks. The purpose is to protect and develop long-term value in our clients’ portfolio companies. Material Risk/Strategy & Risk is an engagement overlay of Sustainalytics’ flagship product, ESG Risk Ratings.

The Stewardship team will engage with companies covered by the analyst driven component of Morningstar Sustainalytics' ESG Risk Ratings universe, powered by three Morningstar Indexes, which have an ESG Risk Ratings score of 30 or more. The ESG Risk Ratings score reflects the unmanaged ESG risk, so the higher the score, the more risk the company is exposed to.

The engagement is driven by constructive dialogue. The research from the ESG Risk Ratings and the Controversies research are leveraged to encourage companies to cover gaps in Material ESG Issues risk management. Engagement Response, Progress, Positive Developments, and Milestones are consistently tracked to measure commitment and capability to change in addition to the engagement activities conducted. When a company improves by bringing the ESG Risk Ratings score to below 28, the Material Risk/Strategy & Risk Engagement case will be considered resolved.

Year in Review

Paulina Segreto
Director, Stewardship
Morningstar Sustainalytics

Shane Tiley
Associate Director, Stewardship
Material Risk/Strategy & Risk Engagement
Morningstar Sustainalytics

This annual review brings together insights from our 2025 engagements and research, outlining key themes and regional dynamics that shaped corporate resilience and sustainability strategies. Throughout the year, we observed, analyzed, and discussed evolving approaches to the management of material ESG issues across major markets; from decarbonization strategies in Europe to regulatory uncertainty and transition readiness in North America.

Our 2025 engagement activity and editorial research emphasized persistent challenges and emerging opportunities in climate risk management across regions. In Q1 2025, we highlighted key insights gained from dialogues with European companies, which underscored structural barriers to industrial-scale decarbonization including infrastructure constraints and cost pressures. Despite these hurdles, companies demonstrated commitment to transition goals through capital allocation and policy advocacy focused on low-carbon technology.[1]

Also in the first quarter, we began closely monitoring our engagements with approximately 90 North American companies to assess the impacts of the rapidly evolving landscape in the US. Our early 2025 evaluations of US company climate preparedness efforts revealed a gap between emergency preparedness and long-term physical climate risk management. The analysis was underpinned by the materiality of climate change, supporting the business case for climate action.[2]

Continuing the focus on dynamics related to US company transition preparedness in Q2, engagement dialogues with US utility companies, along with editorial research, demonstrated that while data center energy demand is accelerating at a rapid pace in the US, a large share of utilities remained underprepared for a low-carbon transition. We evaluated barriers US utilities experienced in meeting the energy demand surge and considered impacts to delivering a reliable, low-carbon power supply. We learned that meeting the electricity needs of AI will increasingly depend on how quickly grid infrastructure, siting processes, and permitting systems can adapt. Investors can strengthen decision-making by considering data on utility carbon intensity and transition-readiness.[3]

Furthermore, in Q2 we enhanced our strategic presence in Southeast Asia with direct engagement with stock exchanges, institutional investors, and corporate stakeholders in Malaysia and Singapore. We co-led a full-capacity investor roundtable at the Southeast Asia Investor Forum and participated in a high-level panel where discussions focused on regulatory asymmetries, sector blind spots, and the growing demand for stewardship-informed capital.

In Japan, we analyzed corporate governance developments and concluded that Japanese issuers showed progress in board independence, remuneration and disclosure practices under the new Corporate Governance Code. However, when compared to Western standards, there remained room for improvement in areas such as the structure of remuneration and the transparency of remuneration amounts.[4]

In the second half of 2025, our Strategy and Risk engagements continued to evolve in response to shifting geopolitical, regulatory, environmental, and social factors. Engagements remained active across multiple jurisdictions, including the US. Company dialogues continued to confirm that a compliance-based approach to ESG is not always enough, especially for multi-jurisdictional companies operating in conflicting regulatory environments. In partnership with our incidents focused engagement programme we established further insight into this concept, concluding that companies operating across multiple jurisdictions should proactively align compliance strategies with the most rigorous regulatory environments – even if it means exceeding local requirements. We also established that regional compliance teams are essential to embedding a strong culture of compliance, and that companies should further demonstrate accountability through well-defined ESG policy.[5]

Late in the year, attention shifted to resource-intensive sectors. We explored Norway's expansion of Arctic petroleum licensing and highlighted tensions between energy security and climate commitments, raising critical engagement priorities on biodiversity safeguards, Indigenous rights, and operational risk management. When Norway names the APA 2025 winners in early 2026, we plan to evaluate how new entrants approach Arctic governance.

Additionally, Arctic-specific Health, Safety and Environment (HSE) systems, coordination with local authorities and civil defense, and capability to protect both offshore workers and nearby residents in crisis conditions will underpin the evaluation of risk governance.[6]

Similarly, our research and engagements confirmed that Canada's oil and gas sector faces significant challenges in meeting national decarbonization targets as production increases and national project priorities fast-track. Despite sectoral decarbonization initiatives as well as incentives for carbon capture and storage, accelerated investment in low-carbon technologies is needed in order to meet previously disclosed decarbonization commitments.[7]

Throughout 2025, a common thread emerged: regulatory uncertainty and uneven transition readiness continued to shape corporate strategies across regions. These dynamics reinforced the need for companies to move beyond compliance toward integrated risk management and resilience planning. As we look ahead, our engagements will continue to prioritize adoption of global best practices, transparent disclosure, and credible transition pathways that strengthen long-term sustainability performance and stakeholder trust.

2025 Global Engagement Insights

Othman Trid
Manager, Stewardship
Material Risk/Strategy & Risk Engagement
Morningstar Sustainalytics

Saddiqah Adamu
Manager, Stewardship
Material Risk/Strategy & Risk Engagement
Morningstar Sustainalytics

2025 marked a turning point for sustainability disclosure and corporate accountability. As global frameworks mature and regional regulations tighten, issuers face mounting pressure to move beyond ambition toward measurable action. This article explores how regulatory shifts shaped issuer behavior and influenced the outcomes of our engagements across regions throughout the past year.

Strategy and Risk Engagement Snapshot

In 2025, our stewardship programme maintained active dialogues across all major regions, with Asia-Pacific leading in engagement volumes, followed by North America and Europe. Africa/Middle East and Latin America accounted for a smaller share of engagements but remained strategically important due to resource-heavy industries and emerging regulatory frameworks in these regions. The most engaged sectors globally included Oil & Gas Producers, Utilities, and Food Products, reflecting investor priorities on climate, energy transition, and supply chain resilience.

Since 2020, we have initiated 663 engagements in total and resolved 115, including 36 in 2025.[8] As of December 2025, 304 remain active. Asia/Pacific led the overall volume of engagements, with Japan and China accounting for the largest share of ongoing dialogues. United States & Canada regional engagements have remained concentrated in the United States. In Europe, resolved engagements were comparatively high relative to the active pipeline, led by the United Kingdom and Germany.

While these trends provide context for the evolution of our engagement activities, strategy and risk focused engagement managers also examine the implications of regulatory developments across their respective regions in this collaborative article.

South Africa: Capacity Gaps and Emerging Climate Governance

In 2025, engagement dynamics across Africa were shaped by accelerating regulatory reforms alongside uneven disclosure readiness, with South Africa remaining the most advanced and influential market. While updated guidance and momentum toward global standards supported more structured discussions on climate and governance, issuers varied widely in their ability to provide decision-useful and assured ESG data. As a result, engagements often balanced stronger regulatory signals with persistent gaps in reporting quality and internal capacity, which continued to limit overall depth and progress.

In South Africa, the year saw continued but uneven movement toward more structured sustainability reporting. The Johannesburg Stock Exchange's voluntary Sustainability and Climate Disclosure Guidance remained a key driver of reporting practices, influencing both investor expectations and issuer behavior.[9] Issuers generally demonstrated growing awareness of emerging standards, but internal capacity constraints and uncertainties around future regulatory timelines created inconsistencies in the quality of disclosures.[10]

This environment shaped engagements throughout the year. Issuers were receptive but often slowed by resource limitations, evolving ESG capabilities, and the lack of consistent assurance. As a result, our engagements tended to focus on strengthening foundational governance structures, maturing climate-risk processes, and encouraging a shift from narrative reporting toward decision-useful metrics. Social topics such as contractor oversight, workforce safety, and community relations also featured prominently amid ongoing capacity and data challenges. Looking ahead, we expect that South African issuers will strengthen governance and improve assurance as regulatory momentum accelerates.

Tania Nadyseva
Engagement Manager, Stewardship
Material Risk/Strategy & Risk Engagement
Morningstar Sustainalytics

Xiaolin Wang
Engagement Manager, Stewardship
Material Risk/Strategy & Risk Engagement
Morningstar Sustainalytics

Turkey: Mandatory Sustainability Standards and Nature Risk Blind Spots

Turkey is one of the most biodiversity-rich geographies in the wider region, positioned at the intersection of the Mediterranean, Caucasus, and Irano-Anatolian biodiversity hotspots. This creates exceptional ecological value but also exposes Turkish companies to high environmental dependency – from water-intensive agriculture and textiles to manufacturing and tourism operating in sensitive coastal and forested areas. Despite this, biodiversity and ecosystem dependencies have historically been underreported and weakly integrated into corporate risk management.

In 2024-2025, Turkey introduced one of its most significant regulatory shifts: Türkiye Sürdürülebilirlik Raporlama Standartları (TSRS), a sustainability-reporting framework modelled on the European Reporting Sustainability Standards. This move marks a transition from voluntary reporting to mandatory, as well as double-materiality-based disclosure for large and listed entities. The new standards are expected to raise transparency on governance, climate metrics, water use, and environmental impacts, and should improve overall comparability with European peers.[11]

However, through our engagements we have noticed that two major risk management gaps remain. First, Turkey has not yet adopted TNFD-aligned nature disclosures, meaning issuers might continue to report very little on ecosystem dependencies, land-use impacts, and biodiversity-related transition risks. Second, water stress, one of Turkey's most material constraints, is still not assessed at basin level, and very few issuers use scenario analysis for assessing physical climate risks.[12] We anticipate that issuers' double-materiality assessments could reveal these topics as priority issues for Turkey-based operations.

UAE & Saudi Arabia: State-led ESG Reform and Disclosure Depth Challenges

In the Gulf region, sustainability is increasingly shaped by state-driven disclosure reforms and long-term national strategies rather than investor pressure. In Saudi Arabia, the regulatory momentum is anchored in Vision 2030,[13] which seeks to diversify the economy, attract foreign investment, and embed sustainability into national development. As part of this shift, Saudi regulators and the Capital Markets Authority have introduced new requirements for listed issuers to improve disclosure on governance, climate, environmental performance, and social metrics. Similar trends are emerging across the Gulf Cooperation Council (GCC), including the UAE, Qatar, and Bahrain, where exchanges and financial regulators are encouraging more structured ESG reporting.

However, the region still faces a significant depth-of-disclosure gap. Climate reporting tends to focus on high-level commitments, with limited transparency on scope 3 emissions, water stress, biodiversity impacts, and physical risk modelling: despite these being structurally material in an arid region with high exposure to heat extremes, desalination dependence, and ecological degradation. Social and human-rights disclosures also vary widely, especially in sectors reliant on migrant labour or operating in complex geopolitical environments.[14]

From an engagement perspective, disclosure progress in the Gulf is not uniform across sectors. In 2025, financial institutions showed stronger governance structures and more established risk-management systems, which has supported more robust sustainability reporting relative to other industries. This contributed to the resolution of five engagements with Saudi banks, as improvements in ESG disclosure met our investor expectations. By contrast, disclosure in more resource-intensive or operationally complex sectors remains uneven, particularly regarding water stress, biodiversity impacts, and physical-risk assessment. As regional regulatory frameworks continue to evolve under Vision 2030 and parallel GCC initiatives, we will maintain our focus on encouraging consistent, decision-useful reporting across all industries to support comparability and long-term risk management.

Wakako Mizuta
Manager, Stewardship
Material Risk/Strategy & Risk Engagement
Morningstar Sustainalytics

China: Carbon Policy Momentum and Digital ESG Integration

Momentum in China's ESG landscape remained strong in 2025, particularly among Hong Kong-listed issuers with significant foreign investor exposure. These issuers are seeking to align with international best practices – not only to meet global expectations, but also because domestic policy trends reinforce this direction.

China's dual-carbon policy, targeting peak emissions by 2030 and neutrality by 2060, combined with new 2025 regulations requiring granular climate-related disclosures for HK-listed issuers, is driving stronger carbon management and transparency.[15] Additionally, China's national Emissions Trading Scheme (ETS) expanded in 2025 to include cement, steel, and aluminum industries, raising coverage from about 40% to 60% of national emissions.[16] This marks tighter oversight of carbon-intensive sectors and supports the acceleration of a low-carbon transition. Furthermore, governance structures have matured, with all engaged companies now establishing board-level ESG or sustainability committees to strengthen oversight.

However, our engagements have revealed that ESG-linked executive remuneration remains rare. While some issuers plan to integrate carbon metrics into pay structures, most prioritize meeting current regulations over early adoption. In parallel, Chinese issuers are increasingly leveraging smart systems to strengthen ESG performance and reporting. Pharmaceutical companies, for example, are upgrading pharmacovigilance systems with advanced analytics and algorithms for automated detection and risk alerts. Large conglomerates are adopting integrated digital platforms to ensure consistent ESG data across sectors and geographies, supporting centralized management and predictive risk control. These moves reflect China's push for digital transformation in sustainability governance.

In 2025, disclosure quality improved significantly with several companies moving out of the high-risk category and engagement responsiveness rising: we were able to establish dialogue with 7, or 40%, of the 15 previously non-responsive companies. Looking ahead, carbon reduction will remain central to Chinese companies' ESG efforts, but strong governance will be critical to implementing policy and demonstrating measurable progress.

Japan: Heightened Emphasis on Human Capital Alongside a Sustained Strong Focus on Climate Change

In Japan, the Financial Services Agency (FSA) has taken the lead in requiring sustainability-related disclosures in annual securities reports for issuers listed on the Prime Market. Beginning with the effective requirement for TCFD-aligned reporting in 2022, disclosure obligations have expanded to include enhanced information on human capital, diversity, and corporate governance. In particular, issuers are now required to describe identified risks and opportunities, along with the measures taken to address them, with human resource development policies and workplace environment initiatives being mandatory.[17]

Reflecting these regulatory shifts, our engagements with Japanese issuers indicate that priorities center on climate risk and human capital. Historically, climate risk (particularly TCFD-related disclosure) was the dominant ESG focus, as evident in both reporting and engagement discussions. However, in more recent years, human capital has emerged as a key area of attention. Issuers demonstrated tangible commitments by integrating strategic human capital information into medium- and long-term management plans and integrated reports. This trend is likely driven by the FSA's upcoming expansion of human capital disclosure requirements in annual securities reports from the fiscal year ending March 2026, which will mandate more strategic detail.[18]

Meanwhile, climate change remains a strong focus. Starting in 2027, ISSB-based standards developed by the Sustainability Standards Board of Japan (SSBJ) will be phased in, beginning with Prime Market-listed issuers with market capitalization of JPY 3 trillion (around USD 21 billion) or more. Through our engagements, we observed issuers actively implementing measures to meet these disclosure requirements.

These developments reflect the FSA's emphasis on strengthening corporate governance and promoting long-term value creation through dialogue between companies and investors.[19] In this context, the FSA regards both climate-related risks as well as investments in human capital as factors that directly affect future cash flows and long-term valuation. In light of this, we remain committed to engaging on these topics and encouraging continuous alignment to best practices and disclosure enhancements.

India: Incremental Decarbonization Amid Coal Dependence

India's sustainability landscape in 2025 continues to be shaped by its net-zero 2070 commitment, which sets a markedly different decarbonization trajectory than other OECD markets.[20] Notably, most companies do not plan a near-term coal phase-out; instead, the policy focus is on reducing emissions intensity within an expanding coal fleet.

A key development we observed across our engagements was an increasing reliance on biomass co-firing, particularly using agricultural residue from the rice-wheat belt. While co-firing is not unique to India, the country stands out in three ways: 1. The scale of available crop residue and the need to address severe seasonal air pollution from open burning; 2. The presence of mandatory, time-bound national co-firing requirements for all coal plants, rather than voluntary utility-level initiatives; and 3. Its framing as a strategy to make coal cleaner, not to replace it, consistent with a longer-term 2070 transition pathway.

The result is a dual dynamic: Indian issuers remain highly dependent on coal for energy security and economic growth; yet throughout our engagements, issuers have shown increasing openness to discussing incremental decarbonization measures such as biomass, waste-to-energy, early hydrogen pilots, and grid flexibility, due to the absence of policy pressure for accelerated coal retirement. The path forward should yield more detailed decarbonization disclosure focused on intensity-based reduction strategies.

Europe: From Ambition to Execution

Engagement with Western European issuers highlights a region in transition – balancing strong ESG ambitions with practical implementation challenges. Regulatory frameworks such as the Corporate Sustainability Reporting Directive (CSRD), Corporate Sustainability Due Diligence Directive (CSDDD), and the EU Taxonomy are not just reporting tools; they influence corporate strategy by requiring disclosure on how sustainability is embedded in business models and by defining which activities qualify as sustainable for financing. Although the recent omnibus simplification package reduces reporting burdens, many companies have already built sophisticated reporting systems to meet earlier granular requirements.[21] This maturity not only allows companies to consolidate reporting efficiently but also enhances ESG monitoring and risk management.

Climate commitments are widespread: most issuers have signed up to Science-Based Targets, and some have verified goals. However, scope 3 emissions measurement remains a critical challenge, often with spend-based approach. In our engagements, most issuers have agreed to initiate active supplier engagement to transition toward supplier – specific approaches. Furthermore, social and supply-chain risks gained prominence, driven by laws such as Germany's Supply Chain Due Diligence Act and the upcoming CSDDD.[22] In response, issuers are strengthening grievance mechanisms, mapping high-risk suppliers, and embedding human rights into procurement processes.

Overall, our engagements with Western European issuers in 2025 have indicated that they are motivated and well-prepared. As we move into the year ahead, the differentiator will be execution: issuers embedding ESG into strategic planning and operational decisions will define resilience in an era of heightened scrutiny.

Brazil: Structured Climate Reporting and Biodiversity Risk

Engagements in Brazil during 2025 took place within a regulatory landscape that has recently incorporated several major sustainability and climate disclosure requirements. Publicly listed companies are preparing to implement the Brazilian Committee on Sustainability Pronouncements (CBPS) Technical Pronouncements No. 01 and No. 02, mandated through CVM Resolutions 217 and 218.[23,24] These standards introduce structured requirements for sustainability-related and climate-related financial disclosures and formally align the Brazilian corporate reporting environment with the IFRS S1 and IFRS S2 frameworks. As a result, many issuers have begun strengthening internal data systems, reviewing governance processes, and assessing how climate transition risks should be incorporated into financial planning and scenario analysis.

Engagement discussions often touched on sector-specific challenges such as deforestation exposure, biofuel scaling, methane reduction, and supply-chain traceability. Biodiversity has emerged as an important topic, and several issuers signaled increased attention to nature-related risks, particularly those linked to land use, water resources, and agricultural supply chains.

Under B3's New Issuers Regulation Annex B, listed issuers must publish ESG-related information under a comply-or-explain model, which has prompted companies to improve clarity around sustainability governance and metrics.[25] Together, with regulatory framework advancements for investment funds and reinforced financial institution reporting requirements, these developments will continue to shape our stewardship conversations by encouraging disclosure of more robust, decision-useful information on climate, sustainability strategy, and nature-related impacts.

Mexico: Transition to ISSB-Aligned Sustainability Framework

In Mexico, our 2025 engagements occurred as the country began implementing a new sustainability-reporting framework that moves toward alignment with ISSB standards while maintaining distinct national requirements. For issuers that report under Mexican Financial Reporting Standards, the Sustainability Information Rules NIS A-1 and NIS B-1 issued by the Mexican Council for Financial Reporting Standards (CINIF) now serve as the foundation for sustainability disclosure.[26] Commentary surrounding the NIS highlights that they encourage a double-materiality perspective and provide a bridge towards eventual convergence with IFRS S1 and IFRS S2, while not being identical to the ISSB standards.[27]

For issuers, regulatory expectations around ESG disclosure continued to increase. Mexico's National Banking and Securities Commission's (CNBV) reporting framework requires issuers with securities registered in the National Securities Registry to disclose information such as environmental policies, relevant certificates, projects related to environmental protection and climate change, and details on board composition, including gender.[28]

From a stewardship perspective, issuers frequently identified transition planning as a key concern, especially in energy, transport, and industrial sectors. Biodiversity and broader nature-related risks surfaced in discussions around issues such as land-use change, deforestation exposure, and water stress in agriculture and manufacturing value chains. These themes intersect with Mexico's Sustainable Taxonomy, developed by the Ministry of Finance as a public policy tool to guide capital toward activities that support climate-change mitigation and adaptation, gender equality, and broader sustainable- development objectives.[29] As a result, we anticipate enhanced reporting practices on these topics in the year ahead.

United States: Regulatory Retrenchment and ESG Polarization

In 2025, our engagements with US issuers happened against a dynamic and unpredictable policy and regulatory backdrop. Federal actions reversed several climate and social-policy commitments, including a second withdrawal from the Paris Agreement, the suspension of major renewable-energy initiatives, and the termination of Federal DEI and environmental-justice programmes.[30,31,32] The declaration of a national energy emergency, prioritizing expanded fossil-fuel development, further politicized climate strategy, transition planning, and social-equity topics.[33]

The Securities Exchange Commission (SEC) withdrew its climate-disclosure rule and introduced stricter requirements for shareholders engaging on ESG topics.[34] Furthermore, several engaged federal contractors scaled back ESG reporting due to litigation and political exposure, resulting in thinner, backward-looking disclosures that limited depth on safety, climate, and product-governance issues.[35] Against this backdrop, most US issuers approached our engagements with heightened caution. Discussions were increasingly led by legal counsel, with reluctance to speak beyond public filings. To help navigate this environment, we implemented a pre-engagement compliance notice, delimiting the intent and scope of each dialogue.[36]

Despite these constraints, most of our engagements advanced meaningfully, but required tighter regulatory awareness, evidence-based and politically neutral asks, and financially material metrics. Advancing into 2026, we expect ESG polarization in the US to persist. We recognize that our engagement strategies will need to emphasize resilience and adaptability while prioritizing financially material outcomes and risk-based approaches. We also anticipate heightened scrutiny of engagement practices in the US, that will continue to reinforce the building of trust through transparent, compliance-conscious dialogue.

Canada: Disclosure Tightening and Anti-Greenwashing Measures

During our Canadian engagements in 2025, issuers operated within a relatively stable but scrutinized ESG risk management and disclosure environment. Discussions examined how current practices interact with reporting expectations, especially when climate or environmental claims could be challenged as misleading.

Several Canadian energy companies that we engage with have refined, qualified, removed, or postponed their climate transition narratives in response to anti-greenwashing provisions introduced through Bill C-59 in 2024. In November 2025, the Department of Finance released a Ways and Means motion proposing changes to the anti-greenwashing measures in Canada's Competition Act (Bill C-59) as discussed in the November Federal Budget announcement. These proposed changes aim to reduce litigation risks around sustainability disclosures and clarify requirements for substantiating representations made about sustainable business activities. At the same time, many issuers were preparing for reporting aligned with the Canadian Sustainability Disclosure Standards (CSDS 1 and CSDS 2), which are based on IFRS S1 and IFRS S2 and were finalized in late 2024 for use beginning in 2025, pending regulatory endorsement.[37] However, the Canadian Securities Administrators (CSA) has paused work on mandatory climate-related disclosure rules due to global uncertainty and competitiveness concerns, which means that CSSB standards remain voluntary guidance, for now.[38]

Through our escalation process and otherwise, we initiated several new engagement dialogues with Canadian issuers who have demonstrated caution, but a willingness to engage. Some engaged issuers, however, continued to point to website disclaimers discussing their perceived limitations resulting from Bill C-59.

With rapidly moving Federal actions in support of major projects, including CCUS, we anticipate seeing issuers move ahead with the reinstatement of disclosures in 2026 as well as the resuming or initiation of new engagement dialogues.

Navigating Complexity and Driving Progress into 2026

Engagements in 2025 underscored the importance of aligning disclosure practices with material risks, embedding ESG into governance, and ensuring resilience amid geopolitical and policy uncertainty. As sustainability expectations deepen across markets, the role of active stewardship becomes even more critical.

Across regions, regulatory complexity shaped not only disclosure practices but also the depth and tone of our engagements, requiring more evidence-based asks and collaborative approaches. Our outlook and global engagement priorities for 2026 include emphasis on external audit and verification, robust disclosure of decision-useful data, science-based climate and nature planning, stakeholder consultation and inclusion, and transparent dialogue with investors.

Engagement Overview

304
engagements as of 31 December 2025

65
new engagements

663
companies engaged since March 2020

SDG 13 Climate Action
(56%) linked to engagement objective

Asia / Pacific
region with the largest number of engagements

Oil & Gas Producers and Utilities
industries with the most engagements

Climate Change - Transition Risk and Disclosure
top material ESG topics in engagement dialogue

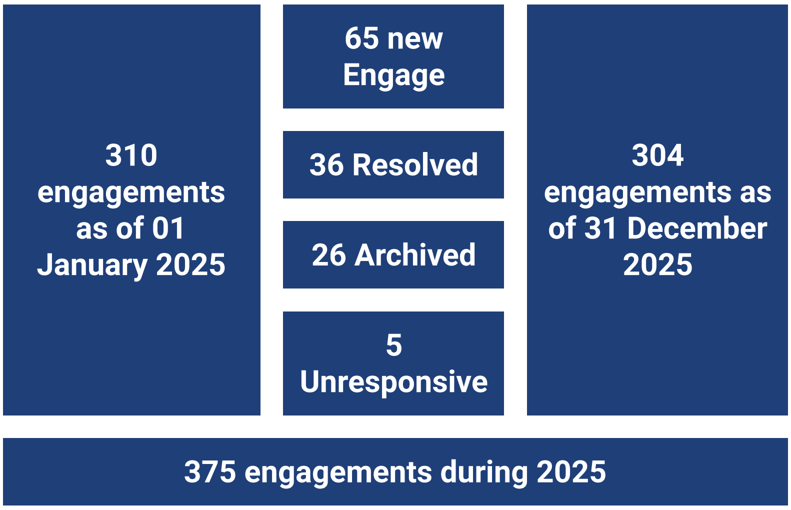
Engagement Status

When we open an engagement, the status is Engage. We will then pursue engagement until we change status to:

Resolved The company has achieved the engagement objective.

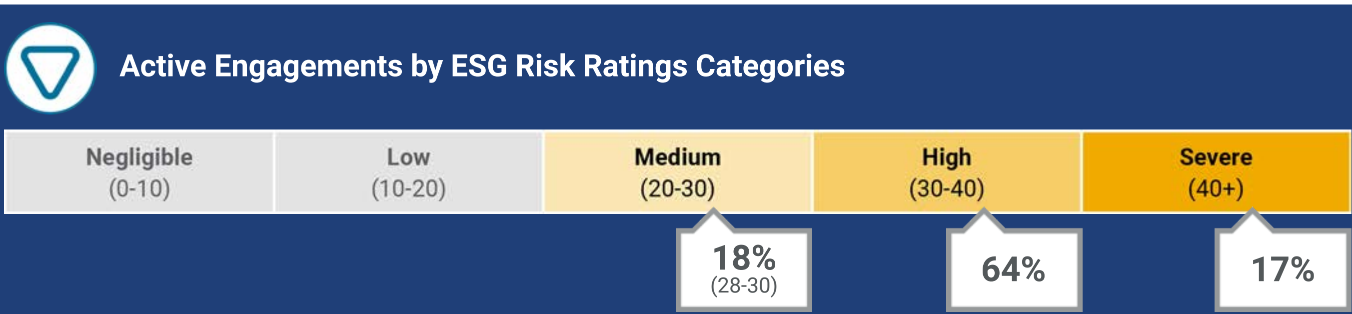
Archived Engagement is concluded, the engagement objective has not been achieved.

Unresponsive Unresponsive is the final step in the escalation for companies not responding to our engagement. At this final step, we have exhausted all other engagement tools.

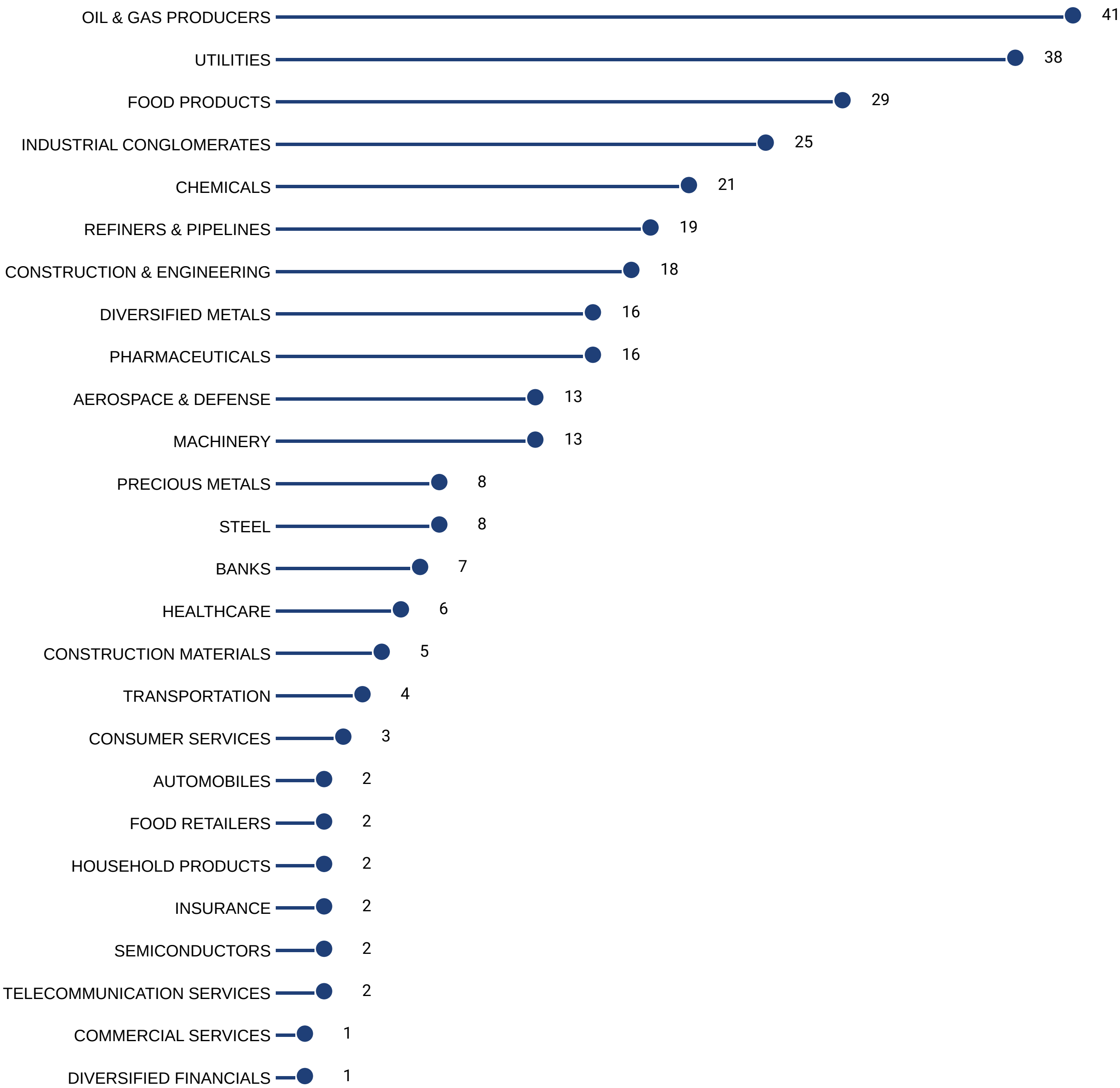


On a regular basis, universes are rebalanced and issuers might therefore be removed from our data set. Corporate changes can also affect case status. In such circumstances, opening and closing engagement counts will not match. Impacted companies may or may not overlap with investor holdings.

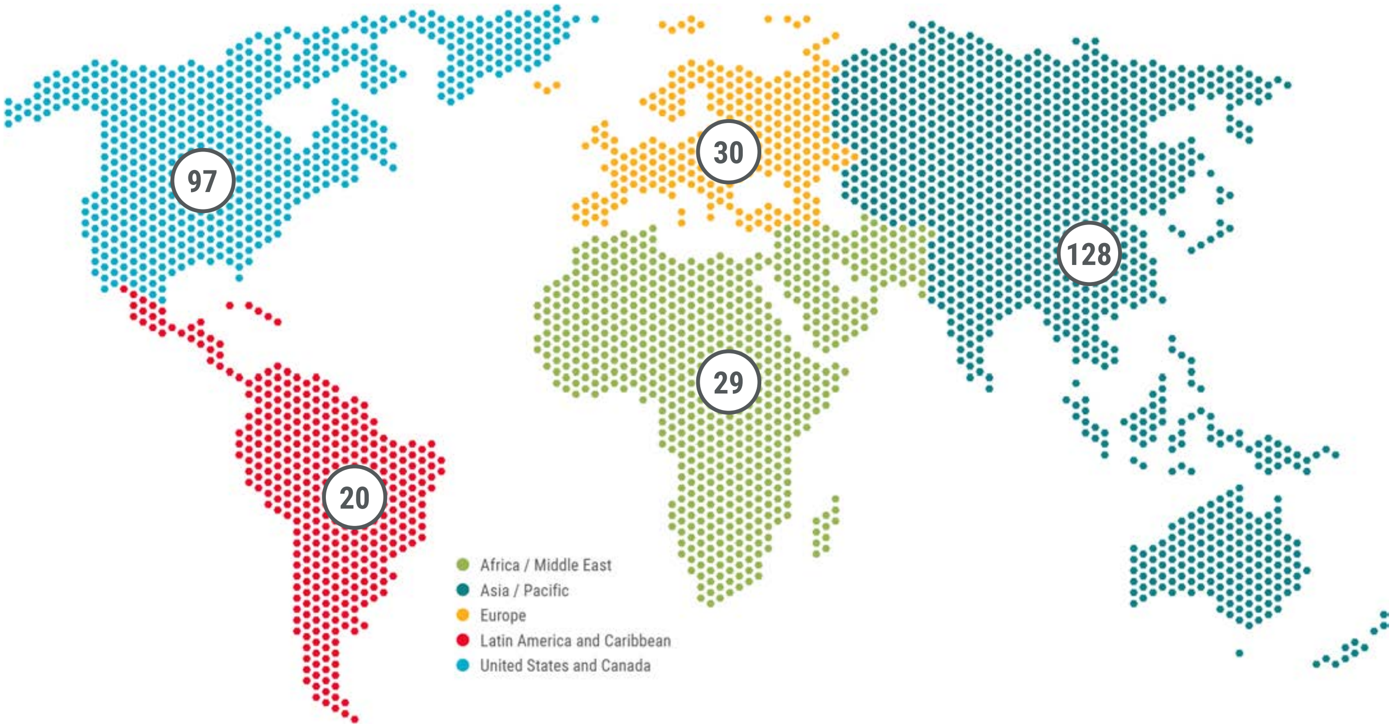
Active Engagements by ESG Risk Ratings Categories



Industry Distribution



Engagements by Headquarter Location

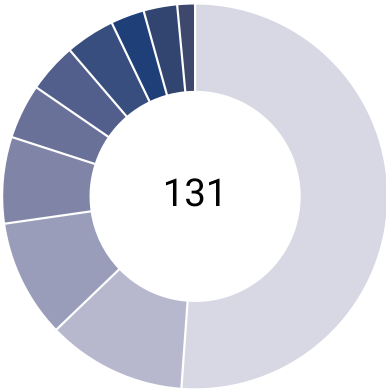


Engagement Topics

During the reporting period, our engagements addressed a number of topics across the environmental, social and governance pillars.

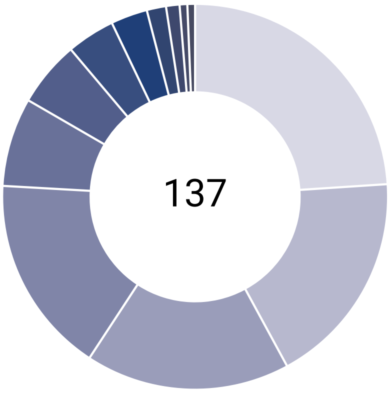
Environmental

- CLIMATE CHANGE - TRANSITION RISK (115)
- WASTE MANAGEMENT (22)
- LAND POLLUTION AND SPILLS (10)
- BIODIVERSITY (9)
- NATURAL RESOURCE USE (6)
- WATER SECURITY (26)
- WATER QUALITY (16)
- AIR POLLUTANT EMISSIONS (9)
- DEFORESTATION (6)
- CIRCULAR ECONOMY (3)



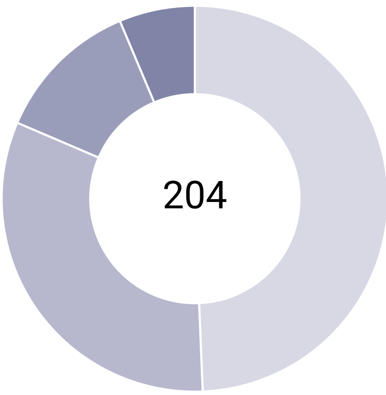
Social

- PRODUCT QUALITY AND SAFETY (49)
- OCCUPATIONAL HEALTH AND SAFETY (35)
- HUMAN RIGHTS (15)
- DATA PRIVACY AND SECURITY (8)
- MARKETING PRACTICES (3)
- HIGH-RISK TERRITORIES (1)
- COMMUNITY RELATIONS (37)
- HUMAN CAPITAL (34)
- DIVERSITY, EQUITY AND INCLUSION (DEI) (11)
- INDIGENOUS PEOPLE (6)
- LABOUR RIGHTS (2)
- JUST TRANSITION (1)



Governance

- DISCLOSURE (151)
- BUSINESS ETHICS, BRIBERY AND CORRUPTION (37)
- ESG GOVERNANCE (98)
- BOARD COMPOSITION (19)



Note: Each engagement case may address multiple ESG topics. The numbers in parentheses indicate how many engagements include that specific topic. The total in the chart reflects the count of engagements with an Environmental, Social, or Governance focus. While a single engagement may span multiple ESG pillars, it is counted only once in the total. However, there is no limit to the number of topics an engagement can cover, so the topic counts will not sum to the total per pillar.

Sustainable Development Goals - Mapping Engagements

All engagements are mapped to the 17 UN Sustainable Development Goals (SDGs). The mapping is done by Morningstar Sustainalytics and refers to the focus and objective(s) of the engagement.

1 No Poverty	0%	10 Reduced Inequality	2%
2 Zero Hunger	1%	11 Sustainable Cities and Communities	20%
3 Good Health and Well-Being	12%	12 Responsible Consumption & Production	44%
4 Quality Education	0%	13 Climate Action	56%
5 Gender Equality	2%	14 Life Below Water	1%
6 Clean Water and Sanitation	6%	15 Life on Land	5%
7 Affordable and Clean Energy	19%	16 Peace & Justice, Strong Institutions	47%
8 Decent Work and Economic Growth	21%	17 Partnerships to Achieve the Goal	1%
9 Industry, Innovation & Infrastructure	12%		

Case Study: Archer-Daniels-Midland Co. (ADM)

Material Risk/Strategy & Risk Engagement - Engagement Since: 21 March 2022

Industry: **Agriculture**

Country: **United States of America**

ESG Risk Rating: **30.3**

ADM is a global leader in processing oilseeds, corn, wheat, and other crops. It operates one of the largest grain merchandising networks, supported by extensive storage and transportation assets.

Progress: **Standard** | Response: **Good** | Latest Milestone: **4**

Engagement Update

Since March 2022, ADM has engaged in six conference calls and one-in-person meeting as part of our ongoing stewardship dialogue. During our most recent call in December 2025, ADM provided detailed insight into how water considerations are integrated into its regenerative agriculture program, emphasizing that methodological challenges, particularly for rain-fed systems, currently limit the feasibility of supplier-level water KPIs or quantitative basin-level reporting.

Focus Area

Our dialogue seeks stronger ESG risk management at ADM, focusing on governance, climate, biodiversity, and supply chains. Objectives include ensuring robust governance through improved controls and leadership, advancing deforestation-free sourcing.

Engagement Outcomes

Since 2023, ADM has advanced its ESG efforts in supply chain transparency, climate action, and biodiversity. In 2025, it disclosed soy and palm supply chains verified as deforestation-free, adopted a global Standard Operating Procedure for due dilligence that includes human rights reviews and audits, submitted scope 1-3 targets to SBTi with early reductions, and launched a global biodiversity mapping project with Restore and the E.O. Wilson Foundation.

Insights & Outlook

Engagement shows ADM strengthening its ESG leadership through regenerative agriculture, biodiversity mapping, and low-carbon solutions. Next steps include broadening deforestation-free verification, aligning decarbonization goals with SBTi, and embedding nature-related risk in supply chain decisions. Openness to external input suggests ADM will refine governance and reporting, moving toward a more strategic, resilient ESG agenda.

Case Study: Cenovus Energy, Inc. (Cenovus)

Material Risk/Strategy & Risk Engagement | Engagement Since: 31 May 2023

Industry: **Integrated Oil & Gas**

Country: **Canada**

ESG Risk Rating: 42.9

Cenovus has upstream projects across Western Canada as well as crude oil production, natural gas, and NGLs production in offshore China and Indonesia. Downstream operations include upgrading and refining in Canada and the US, and commercial fuel operations across Canada.

Progress: **Standard** | Response: **Standard** | Latest Milestone: **4**

Engagement Update

After several attempts to connect with Cenovus in 2023 and 2024, it responded to a Director Letter sent in April 2025 as part of our engagement escalation process. Shortly thereafter, we had an introductory call with the company's new representatives.

Despite the company's concerns involving 2024 updates to Canada's Competition Act (Bill C-59) and Cenovus' resulting limitation of environment and climate-related disclosure, the company participated in engagement dialogue during July 2025 where it spoke transparently and was agreeable to several of our suggested actions related to disclosure enhancements.

Focus Area

Topics discussed in July 2025 included ESG disclosure and next steps in response to updated Competition Bureau guidance, effluent management practices (related to associated incidents), non-GHG air emissions, as well as physical climate risk management, scope 3 emissions, and decarbonization targets.

Engagement Outcomes

We commended the company for moving forward with a modified Corporate Social Responsibility (CSR) report for FY2023, which shared progress towards Indigenous reconciliation and acceptance and belonging targets as well as safety performance and governance information. During the 2025 engagement dialogue, we delivered suggested actions for improvement. Cenovus published its FY2024 CSR shortly after our engagement meeting.

Insights & Outlook

Climate-related dialogue was limited, but Cenovus explained that its intent and approach to environmental action remains unchanged. Cenovus was interested in physical climate disclosure investor expectations and confirmed it was completing water and biodiversity assessments. We anticipate some reinstated disclosure in 2026 resulting from November 2025 Federal Budget Announcements as well as recent provincial and federal support for the proposed Pathways Alliance Carbon Capture, Utilization, and Storage facility.

Case Study: Chevron Corp. (Chevron)

Material Risk/Strategy & Risk Engagement - Engagement Since: 03 September 2021

Industry: **Oil & Gas Producers**

Country: **United States**

ESG Risk Rating: **41.3**

Chevron is an integrated energy company with exploration, production, and refining operations worldwide, the second-largest oil company in the United States. Production activities take place in North America, South America, Europe, Africa, Asia, and Australia and its refineries are located in the US and Asia.

Progress: **Standard** | Response: **Good** | Latest Milestone: **4**

Engagement Update

Four conference calls have taken place with Chevron since the engagement initiated in September 2021. In January 2025, a joint conference call with Sustainalytics Material Risk Engagement and Net Zero Transition engagement teams was held for the first time. This discussion focused on Chevron's decarbonization strategy. Suggested actions supported by both engagement programmes included recommendations to integrate quantitative GHG reduction metrics into executive compensation and clarifying how capex is aligned with decarbonization goals.

Focus Area

Topics discussed during the 2025 joint engagement meeting included climate-related governance, risk and impact assessment, as well as Chevron's low-carbon transition strategy. Following the engagement meeting, Chevron provided written responses to our discussion points regarding the company's board effectiveness and grievance reporting. At the request of Chevron, Morningstar Sustainalytics provided peer examples of best practice for GHG emission reduction strategies.

Engagement Outcomes

Chevron focuses on a portfolio-wide carbon intensity approach and believes its scope 1 and 2 carbon intensity metrics remain the most effective approach to its decarbonization strategy. Chevron does not currently plan to set explicit scope 3 GHG emissions targets. Greater transparency around lobbying activities was also a topic of discussion, and Chevron committed to sharing available disclosures as per regulatory requirements.

Insights & Outlook

Chevron considers the IEA Net Zero scenario as remote and highly unlikely due to the immediate and unprecedented action required to transform the global energy system - but believes its processes for tracking leading indicators and adapting its business enables it to be flexible in response to potential changes in policy, supply, demand, and physical risk. Moving forward, discussions with Chevron for this engagement will refocus on Chevron's non-GHG air Emissions, Effluents and Waste, Governance, and Business Ethics, which are considered as the most material risks for the company.

Case Study: CITIC Ltd. (CITIC)

Material Risk/Strategy & Risk Engagement - Engagement Since: 30 August 2021

Industry: **Industrial Conglomerates**

Country: **China**

ESG Risk Rating: **49.0**

CITIC, a Hong Kong-based conglomerate, operates through five main segments: financial services, advanced manufacturing, advanced materials, new consumption, and urbanization.

Progress: **Standard** | Response: **Standard** | Latest Milestone: **3**

Engagement Update

Since engagement began in October 2021, contact with CITIC has been limited but has gradually improved, especially in early 2025. Despite initial challenges, two conference calls were held, with a reconnection call in May 2025 to discuss key ESG risks and recent developments. CITIC has since demonstrated notable progress in governance, ethics, and carbon management.

Focus Area

The most recent discussion in May 2025 focused on CITIC’s ESG risk management practices, particularly in corporate and product governance, carbon emissions management, and business ethics. Future engagement will focus on enhancing carbon management and ESG integration into financial operations. Emphasis will also be placed on emissions reporting (quantitatively) and third-party verification to improve transparency and credibility.

Engagement Outcomes

CITIC demonstrates a clear and structured approach to ESG governance, encompassing oversight of ESG strategy, regulatory compliance, risk management, and auditing. Its disclosures are generally transparent and comprehensive, although reporting on scope 3 emissions remains a challenge.

Regarding ESG integration into financials, CITIC’s financial arm, CITIC Bank, has established a framework for assessing the ESG impact of its financing activities. While it continues to provide funding to highly energy-intensive sectors and projects, the bank aims to support their transition toward a low-carbon economy. This includes facilitating energy efficiency upgrades, technological improvements, and the restructuring of energy systems.

Insights & Outlook

CITIC has set clear targets to reduce scope 1 and 2 GHG emissions, while scope 3 remains challenging due to its complex, global structure and numerous subsidiaries. To address this, carbon assessments of suppliers began with selected subsidiaries in 2024. CITIC outlined comprehensive risk control measures across key risks areas and expressed openness to external guidance for further enhancing transparency and improving practices. CITIC has made notable progress in reducing its carbon intensity. However, further efforts are needed, as its current intensity remains above the industry average.

Case Study: Equinor ASA (Equinor)

Material Risk/Strategy & Risk Engagement - Engagement Since: 24 August 2021

Industry: **Integrated Oil & Gas**

Country: **Norway**

ESG Risk Rating: **27.4**

Equinor is a Norway-based integrated energy company focused on oil, gas, and renewables. Operating mainly on the Norwegian Continental Shelf, it produced 2.1 million barrels of oil equivalent per day in 2024 and holds 6.1 billion barrels of proven reserves. Equinor targets net-zero emissions by 2050.

Progress: **Good** | Response: **Excellent** | Latest Milestone: **4**

Engagement Update

Morningstar Sustainalytics initiated engagement with Equinor in August 2021 and has maintained regular dialogue since. The company has consistently shown a willingness to engage and remains responsive to investor feedback.

In our latest call in October 2025, Equinor highlighted adjustments to its energy transition plan. It outlined changes in its investment approach toward renewable projects and offshore electrification, emphasizing that current priorities focus on value creation. The company noted that further expansion of low-carbon initiatives will depend on economic viability.

Focus Area

Our engagement will continue to prioritize Equinor's transition strategy, with particular attention to the pace and scope of low-carbon investments. Additional focus areas include strengthening risk management practices related to effluent control, occupational health and safety, and community relations.

Engagement Outcomes

Equinor advanced its climate strategy by detailing contributions of decarbonization levers to net-zero goals and joining the 2023 CDP Supply Chain Program, requiring suppliers to set emissions targets. It also released its first human rights report, outlining risk-based due diligence, community engagement, and grievance mechanisms, showing progress in sustainability governance and transparency.

Insights & Outlook

Equinor's sustainability strategy remains tied to its core business, balancing energy security with transition goals. Oil and gas anchor near-term value, while renewables and low-carbon solutions advance selectively where returns are strong. We will also touch on recent developments in Norway's Arctic region where relevant, given their emerging implications for long-term operational risks.

Engagement Results

200
meetings

2,072
emails and phone calls exchanged

36
engagements Resolved

218
Milestones achieved

491
Positive Developments

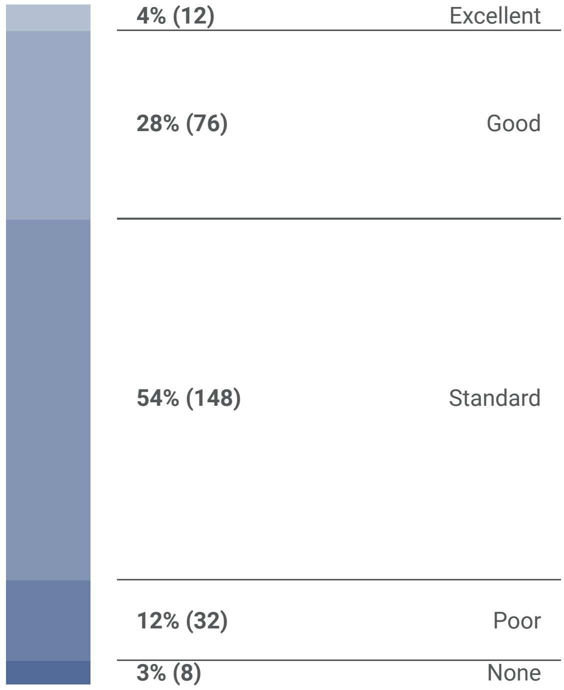
43%
of engagements with Excellent or Good Response

54%
of engagements with Standard Progress

Engagement Progress

Progress reflects the pace and scope of changes towards the engagement objective that the company is making, assessed on a five-point scale.

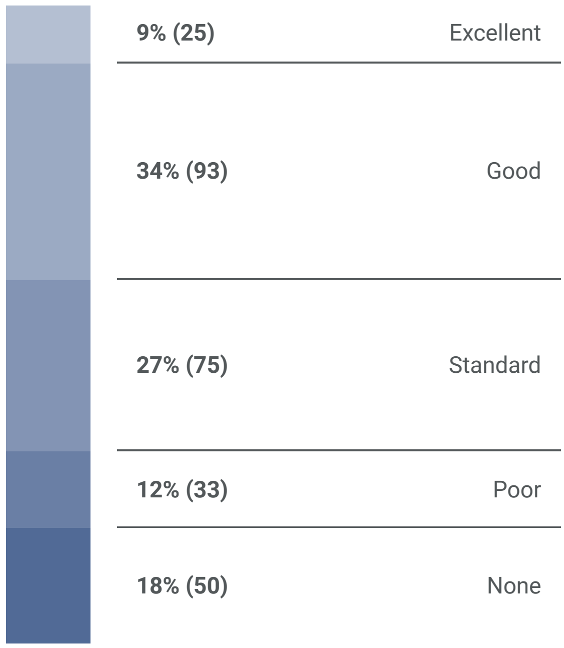
Excellent	The company has adopted a proactive approach and addressed the issues related to the change objective.
Good	The company has taken sufficient measures to address the issues related to the change objective.
Standard	The company has undertaken a number of measures to address the issues related to the change objective.
Poor	The company has indicated willingness to addressing the issues related to the change objective, but no measures have been taken yet.
None	The company has not made any progress against the engagement objective.



Engagement Response

Response reflects the company's willingness to engagement dialogue with investors, assessed on a five-point scale.

Excellent	The company is proactive in communicating around the issues related to the change objective.
Good	The company addresses all the issues related to the change objective.
Standard	The company provides responses to some of the issues related to the change objective.
Poor	The company has initially responded but not properly addressed the issues related to the change objective and is unwilling to engage further with us.
None	The company has not responded to the inquiries.



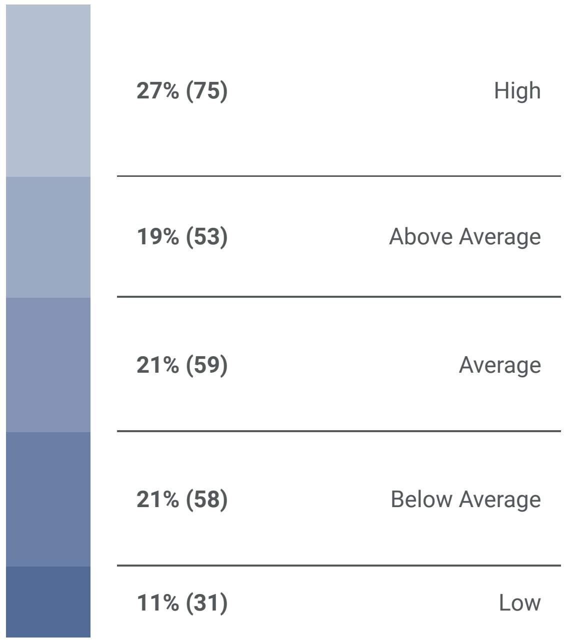
Engagement Performance

Performance describes the combined company Progress and Response.

Engagement Performance Assessment Update

We have five tiers to offer a nuanced understanding, the tiers are: Low, Below Average, Average, Above Average, and High.

The Progress and Response matrix below is used to determine performance.



Progress and Response Matrix

RESPONSE

PROGRESS

	EXCELLENT	GOOD	STANDARD	POOR	NONE
EXCELLENT	High	High	Above Average	Average	Average
GOOD	High	High	Above Average	Average	Average
STANDARD	Above Average	Above Average	Average	Below Average	Below Average
POOR	Average	Average	Below Average	Low	Low
NONE	Average	Average	Below Average	Low	Low

Engagement Milestones

Milestones are our five-stage tracking system used in achieving the engagement objective.

218 Milestones achieved in 2025

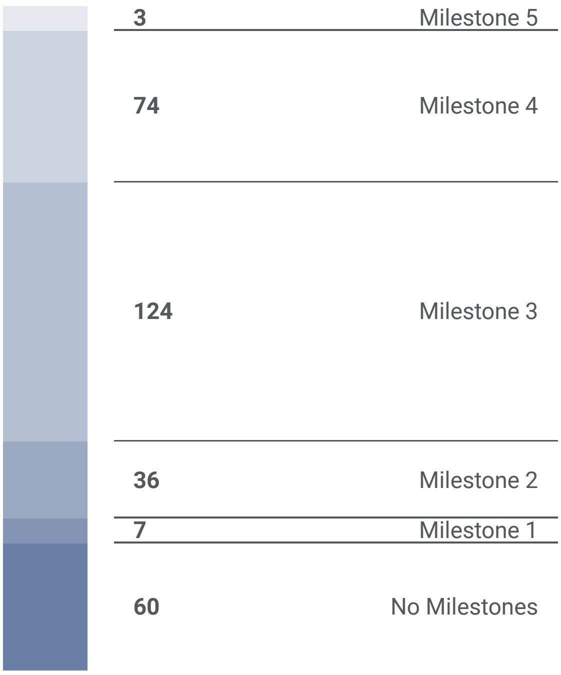
Milestones Framework

Resolved	Case successfully closed.
Milestone 5	Change objective is considered fulfilled.
Milestone 4	Implementation of strategy has advanced meaningfully, and related issuer disclosure maturing.
Milestone 3	Strategy is well formed and has moved into early stages of implementation.
Milestone 2	Issuer establishes a strategy to address the issue.
Milestone 1	Acknowledge of issue(s) and commitment to mitigation.

YTD Highest Milestone Achieved (Resolved)

Note: Cumulative year to date resolved cases.

Highest Milestone Achieved (Engage)



Note: Milestone distribution of ongoing Engage cases at the end of the reporting period.

Engagements Resolved

COMPANY	COUNTRY	INDUSTRY	ISSUE	QUARTER
Aston Martin Lagonda Global Holdings Plc	United Kingdom	Automobiles	Focus on Carbon and Product Governance	Q4
Barrick Mining Corp.	Canada	Precious Metals	Focus on Community Relations	Q4
British American Tobacco plc	United Kingdom	Food Products	Focus on E&S Impact of Products and Services	Q4
Caterpillar, Inc.	United States of America	Machinery	Focus on Product Governance	Q4
InterGlobe Aviation Ltd.	India	Transportation	Focus on Product Governance and Emissions, Effluents and Waste	Q4
NIPPON STEEL CORP.	Japan	Steel	Focus on Carbon Own Operations	Q4
Panasonic Holdings Corp.	Japan	Industrial Conglomerates	Focus on Product Governance	Q4
Rio Tinto Ltd.	Australia	Diversified Metals	Focus on Carbon and Resource Use	Q4
Southwest Airlines Co.	United States of America	Transportation	Focus on Product Governance	Q4
The Saudi Investment Bank	Saudi Arabia	Banks	Focus on ESG Disclosure	Q4
Turkiye Petrol Rafinerileri AS	Turkey	Refiners & Pipelines	Focus on Emissions, Effluents and Waste and Community Relations	Q4
Westlake Corp.	United States of America	Chemicals	Focus on Emissions, Effluents and Waste	Q4
Banque Saudi Fransi	Saudi Arabia	Banks	Focus on Risk Assessment and Corporate Governance	Q3
Evergy, Inc.	United States of America	Utilities	Focus on Carbon and Community Relations	Q3
Mitsubishi Motors Corp.	Japan	Automobiles	Focus on Carbon Own Operations	Q3

COMPANY	COUNTRY	INDUSTRY	ISSUE	QUARTER
Riyad Bank	Saudi Arabia	Banks	Focus on ESG Integration Financials	Q3
SBI Holdings, Inc.	Japan	Diversified Financials	Focus on ESG Disclosure	Q3
Sekisui Chemical Co., Ltd.	Japan	Industrial Conglomerates	Focus on Human Capital	Q3
Vistra Corp.	United States of America	Utilities	Focus on Carbon Own Operations	Q3
Alinma Bank	Saudi Arabia	Banks	Focus on Risk Assessment and ESG Disclosure	Q2
Asian Paints Ltd.	India	Chemicals	Focus on Emissions, Effluents and Waste and Resource Use	Q2
Donaldson Co., Inc.	United States of America	Machinery	Focus on Product Governance	Q2
Dubai Islamic Bank PJSC	United Arab Emirates	Banks	Focus on Product Governance	Q2
Freeport-McMoRan, Inc.	United States of America	Diversified Metals	Focus on Emissions, Effluents and Waste and Community Relations	Q2
Saudi Awwal Bank	Saudi Arabia	Banks	Focus on Product Governance	Q2
United States Steel Corp.	United States of America	Steel	Focus on Risk Assessment and ESG Disclosure	Q2
Universal Health Services, Inc.	United States of America	Healthcare	Focus on Risk Assessment and ESG Disclosure	Q2
Acerinox SA	Spain	Steel	Focus on Carbon and Community Relations	Q1
ANA HOLDINGS INC.	Japan	Transportation	Focus on Human Capital	Q1
BioArctic AB	Sweden	Pharmaceuticals	Focus on Product Governance and Access to Basic Services	Q1
Equatorial SA	Brazil	Utilities	Focus on Product Governance	Q1

COMPANY	COUNTRY	INDUSTRY	ISSUE	QUARTER
Natura &Co Holding SA	Brazil	Household Products	Focus on Product Governance	Q1
NEL ASA	Norway	Machinery	Focus on Carbon and Product Governance	Q1
Northam Platinum Holdings Ltd.	South Africa	Precious Metals	Focus on Community Relations	Q1
Pilbara Minerals Ltd.	Australia	Diversified Metals	Focus on Carbon Products and Services	Q1
Toyota Motor Corp.	Japan	Automobiles	Focus on Carbon and E&S Impact of Products and Services	Q1

Resolved - Acerinox SA (Acerinox)

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

28.3

INDUSTRY:
Steel

COUNTRY:
Spain

ENGAGEMENT FOCUS:
Carbon – Own Operations
Community Relations
Business Ethics

RATIONALE FOR RESOLVED STATUS:
In Q1 2025, Acerinox improved its ESG Risk Rating score to 28.3.

Positive Development Highlights:

- Acerinox integrated climate risk management into its corporate risk management system. In addition, the company conducted a TCFD-aligned climate risk analysis, assessing physical and transition risks for each facility under two climate scenarios and time horizons (2030 and 2050).
- Acerinox expanded disclosure on its whistleblowing channel and Code of Conduct compliance, including number of reports, resolution rates, and business ethics training; also launched a 24/7 anonymous hotline for all stakeholders.
- Acerinox's 2022 disclosure marked the inaugural publication of its TCFD and SASB reports.

Acerinox has improved its Risk Rating score by 1.3 points, bringing it into the medium risk category and to the 28-point threshold for engagement.

Resolved - Equatorial SA (Equatorial)

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

25.0

INDUSTRY:
Utilities

COUNTRY:
Brazil

ENGAGEMENT FOCUS:
Risk Assessment and ESG Disclosure
Product Governance
Occupational Health and Safety

RATIONALE FOR RESOLVED STATUS:
In Q1 2025, Equatorial improved its ESG Risk Rating score to 25.

Positive Development Highlights:

- Equatorial has strategies in all material areas, including safety for employees, contractors, and customers and climate change adaptation. The company's latest Sustainability Report is much more comprehensive and detailed compared to earlier dates.
- The company has strengthened ESG oversight through structured performance tracking and ongoing discussions on climate and biodiversity risk management.
- Equatorial has consolidated its safety management approach, launching the Safety Journey programme with significant investments in communication and training with the purpose to develop a safety culture. The programme is for own employees as well as contractors.

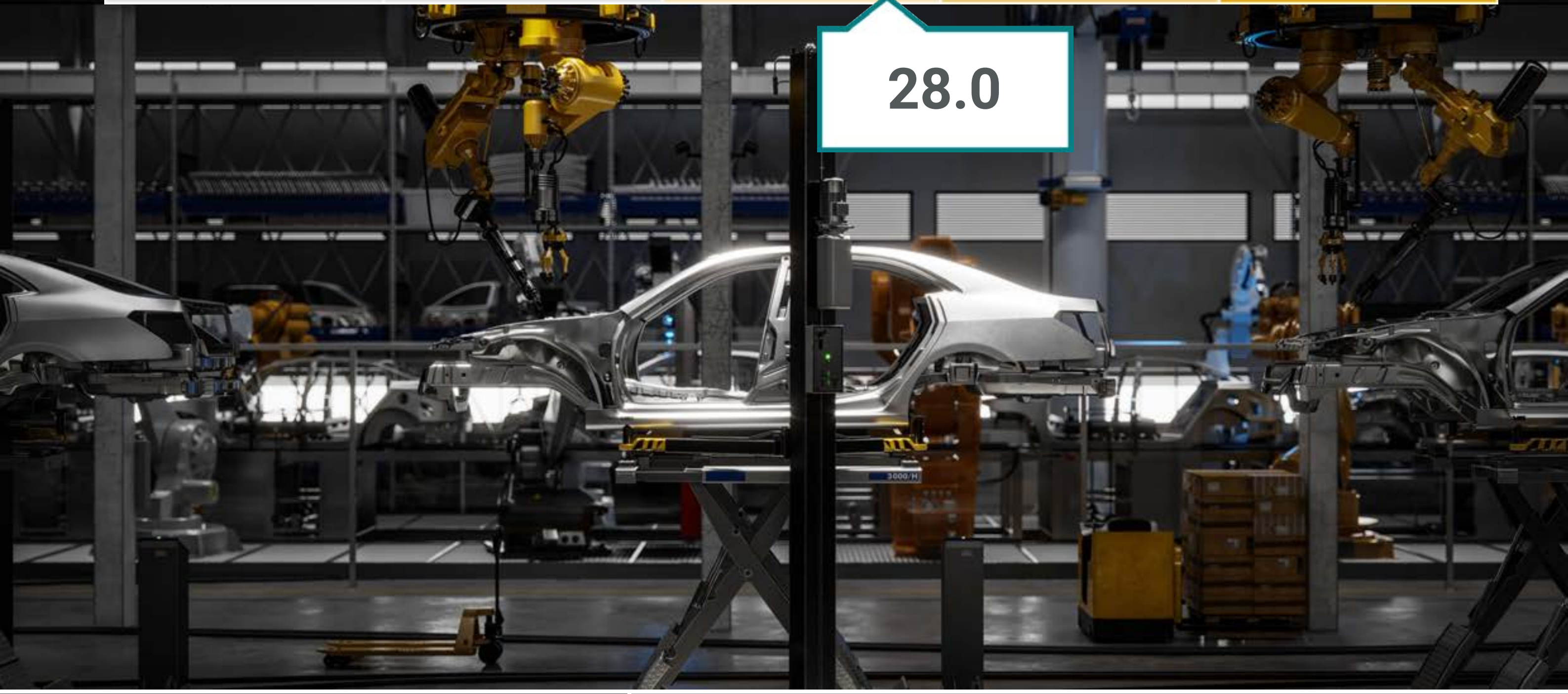
Equatorial has improved its Risk Rating score by 3.4 points, bringing it into the medium risk category and below the 28-point threshold for engagement.

Resolved - Toyota Motor Corp. (Toyota Motor)

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

28.0



INDUSTRY:
Automobiles

COUNTRY:
Japan

ENGAGEMENT FOCUS:
Corporate Governance

RATIONALE FOR RESOLVED STATUS:
In Q1 2025, Toyota Motor improved its ESG Risk Rating score to 28.

Positive Development Highlights:

- Toyota Motor has disclosed the member of Sustainability Meeting where it consists of the Board of Directors.
- The company has conducted materiality assessment using a double materiality approach.
- It has increased the proportion of independent directors from 0.33% to 0.4%.
- Toyota Motor has incorporated ESG (sustainability) metrics into the Board's remuneration.

Toyota Motor's management score improved by 8.1 points, bringing the company into the medium risk category.

Resolved - Freeport McMoran, Inc. (Freeport McMoran)

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

26.2

INDUSTRY:
Diversified Metals Mining

COUNTRY:
United States

ENGAGEMENT FOCUS:
Materiality and ESG Governance
Community Relations
Emissions, Effluents and Waste
Carbon – Own Operations

RATIONALE FOR RESOLVED STATUS:
In Q2 2025, Freeport McMoran improved its ESG Risk Rating score to 26.2.

Positive Development Highlights:

- Freeport McMoran discloses that in 2024 the company conducted an externally led sustainability materiality assessment to incorporate impact materiality as described by the Global Reporting Initiatives (GRI) Standards.
- The company disclosed a standalone PT-FI Sustainability Report for its Grasberg Mine operations in Indonesia in December of 2024. The report includes updated economic and social contribution data and information.
- In its 2024 Annual Report on Sustainability, Freeport McMoran discloses a 2025 target to develop internal water stewardship plans for seven mining and mineral processing operations with medium-high, high or extremely highwater stress ratings.
- The company has increased use of renewable energy at its sites. In 2024, 44% of electricity purchased for American Copper came from renewables. El Abra mine used 100% certified renewable energy in 2023 and 2024 through its existing power purchase agreement (PPA). In 2024, nearly 75% of Cerro Verde's electricity was renewable.

Freeport McMoran has improved its Risk Rating management score by 5.8 points, bringing it into the medium risk category and below the 28-point threshold for engagement.

Resolved - Banque Saudi Fransi

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

21.2

INDUSTRY:
Regional Banks

COUNTRY:
Saudi Arabia

ENGAGEMENT FOCUS:
Risk Assessment
ESG Integration Financials
Product Governance

RATIONALE FOR RESOLVED STATUS:
In Q3 2025, Banque Saudi Fransi improved its ESG Risk Rating score to 21.2.

Positive Development Highlights:

- Banque Saudi Fransi established 21 ESG KPIs aligned with its strategic corporate pillars. These KPIs are being operationalized across all business units throughout 2025, with full rollout expected by year-end. Each unit is supported by designated Sustainability Champions responsible for implementation and accountability.
- The company launched a Sustainable Financing Framework for ESG-linked lending, validated by a second-party provider and aligned with Saudi Vision 2030 and Net Zero 2060 goals.
- Banque Saudi Fransi enhanced climate disclosures by piloting scope 3 emissions (2022-2024), confirming scope 1 and 2 targets for its 2024 ESG Report, and embedding climate risk into credit assessments. ESG KPIs are partially linked to employee performance incentives, reinforcing internal accountability.

Banque Saudi Fransi management score improved, bringing the company well into the medium risk category and below the 28-point threshold for engagement.

Resolved - Rio Tinto Ltd. (Rio Tinto)

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

21.0

INDUSTRY:
Diversified Metals

COUNTRY:
Australia

ENGAGEMENT FOCUS:

- **Emissions, Effluents and Waste**
- **Water Use – Own Operations**
- **Carbon – Own Operations**

RATIONALE FOR RESOLVED STATUS:
In Q4 2025, Rio Tinto improved its ESG Risk Rating score to below 21.

Positive Development Highlights:

- Rio Tinto implemented the Global Industry Standard on Tailings Management at most facilities, reinforcing alignment with the International Council on Mining and Metals' Performance Expectations and improving management of legacy environmental risks.
- The company built a state-of-the-art water strategy by challenging target-setting methodologies and assumptions, supported by an in-house team of water experts, and set contextual water targets at water-stressed sites.
- It committed USD 5–6 billion decarbonization capex to 2030, focused on Power Purchase Agreements, renewables, and capital solutions, alongside opex for carbon tax, offsets, and nature-based solutions; progress toward the 2025 goal of 15% emissions reduction remains on track.
- Rio Tinto set limited, value-chain specific, near-term scope 3 targets and increased efforts to pioneer breakthrough abatement technologies, while continuing to optimize financial exposure to carbon pricing and fossil fuel risks.

Rio Tinto's management score improved by 19.8 points, bringing the company well into the medium risk category and below the 28-point threshold for engagement.

Low Performance Engagements

The following list displays Low Performance companies with Poor or None Progress in combination with Poor or None Response.

When a case is added to the Low Performance list, a 24-month process of specific engagement using a wide range of engagement tools e.g. collaborative investors letters or letters to the company's board, will take place. After two years, the case will be reviewed and a Disengage status can be selected to reflect all other engagement options have been ineffective.

For each Low Performance case, there is a **Low Performance Time Tracker** which illustrates the time elapsed.

COMPANY	COUNTRY	ISSUE	PROGRESS	RESPONSE	TIME TRACKER One piece equals three months.
Al Rajhi Co. for Cooperative Insurance	Saudi Arabia	Focus on ESG Integration Financials	None	None	0-3
Blue Owl Capital, Inc.	United States of America	Focus on Product Governance	Poor	Poor	0-3
Industries of Qatar Co.	Qatar	Focus on Risk Assessment and ESG Disclosure	Poor	None	0-3
Occidental Petroleum Corp.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Poor	None	0-3
Reliance Industries Ltd.	India	Focus on Risk Assessment and ESG Disclosure	Poor	None	0-3
Zoomlion Heavy Industry Science & Technology Co., Ltd.	China	Focus on Carbon and Product Governance	Poor	None	0-3
DraftKings, Inc.	United States of America	Focus on Business Ethics	Poor	None	3-6
ARC Resources Ltd.	Canada	Focus on Emissions, Effluents and Waste	Poor	None	6-9
Encompass Health Corp.	United States of America	Focus on Product Governance and Emissions, Effluents and Waste	Poor	None	6-9
Athabasca Oil Corp.	Canada	Focus on Carbon and Emissions, Effluents and Waste	None	None	9-12

One piece equals three months.

COMPANY	COUNTRY	ISSUE	PROGRESS	RESPONSE	TIME TRACKER
Baytex Energy Corp.	Canada	Focus on Risk Assessment and ESG Disclosure	Poor	Poor	9-12
HF Sinclair Corp.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Poor	None	9-12
ORION Corp.	South Korea	Focus on Product Governance	Poor	None	9-12
QL Resources Bhd.	Malaysia	Focus on Product Governance	Poor	None	9-12
Yunnan Baiyao Group Co., Ltd.	China	Focus on Product Governance	Poor	None	9-12
Zhangzhou Pientzehuang Pharmaceutical Co., Ltd.	China	Focus on Risk Assessment and Corporate Governance	Poor	Poor	9-12
China State Construction Engineering Corp. Ltd.	China	Focus on Risk Assessment	Poor	None	12-15
EOG Resources, Inc.	United States of America	Focus on Emissions, Effluents and Waste	Poor	None	12-15
General Dynamics Corp.	United States of America	Focus on Risk Assessment and ESG Disclosure	Poor	Poor	12-15
Saudi Industrial Investment Group	Saudi Arabia	Focus on Risk Assessment and ESG Disclosure	Poor	None	12-15
Saudi Kayan Petrochemical Co.	Saudi Arabia	Focus on Emissions, Effluents and Waste and Community Relations	Poor	None	12-15
Whitecap Resources, Inc.	Canada	Focus on ESG Disclosure	Poor	Poor	12-15

COMPANY	COUNTRY	ISSUE	PROGRESS	RESPONSE	TIME TRACKER
					One piece equals three months.
Targa Resources Corp.	United States of America	Focus on Emissions, Effluents and Waste and Community Relations	Poor	Poor	15-18
Suncor Energy, Inc.	Canada	Focus on ESG Disclosure	Poor	Poor	18-21
China Petroleum & Chemical Corp.	China	Focus on Carbon and Emissions, Effluents and Waste	Poor	Poor	21-24
Exxon Mobil Corp.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Poor	Poor	+ Above 24
Grupo Carso SAB de CV	Mexico	Focus on Risk Assessment and ESG Disclosure	Poor	Poor	+ Above 24
GS Holdings Corp.	South Korea	Focus on Carbon Own Operations	None	Poor	+ Above 24
Hindustan Petroleum Corp. Ltd.	India	Focus on Carbon and Community Relations	Poor	Poor	+ Above 24
National Industrialization Co.	Saudi Arabia	Focus on Emissions, Effluents and Waste and Land Use and Biodiversity	None	None	+ Above 24
Shanghai Fosun Pharmaceutical (Group) Co., Ltd.	China	Focus on Product Governance	None	None	+ Above 24

Engagement Status Updates

The following is an overview of all engagement status updates from 1 January to 31 December 2025.

New Engage

COMPANY	COUNTRY	ISSUE	QUARTER
Acadia Healthcare Co., Inc.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Q4
Apellis Pharmaceuticals, Inc.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Q4
BellRing Brands, Inc.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Q4
Coca-Cola Consolidated, Inc.	United States of America	New Case - Focus to be Determined	Q4
Comfort Systems USA, Inc.	United States of America	New Case - Focus to be Determined	Q4
Dukhan Bank QPSC	Qatar	New Case - Focus to be Determined	Q4
Enovis Corp.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Q4
Entergy Corp.	United States of America	New Case - Focus to be Determined	Q4
Expand Energy Corp.	United States of America	New Case - Focus to be Determined	Q4
Freshpet, Inc.	United States of America	New Case - Focus to be Determined	Q4
Masimo Corp.	United States of America	Focus on Risk Assessment and ESG Disclosure	Q4
Monde Nissin Corp.	Philippines	New Case - Focus to be Determined	Q4
PPB Group Bhd.	Malaysia	New Case - Focus to be Determined	Q4
Shikoku Electric Power Co., Inc.	Japan	New Case - Focus to be Determined	Q4
Singapore Technologies Engineering Ltd.	Singapore	New Case - Focus to be Determined	Q4

COMPANY	COUNTRY	ISSUE	QUARTER
Snap-On, Inc.	United States of America	New Case - Focus to be Determined	Q4
Summit Therapeutics, Inc.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Q4
THK CO., LTD.	Japan	New Case - Focus to be Determined	Q4
TOHO GAS Co., Ltd.	Japan	New Case - Focus to be Determined	Q4
Trelleborg AB	Sweden	New Case - Focus to be Determined	Q4
Viking Holdings Ltd. (Bermuda)	Bermuda	New Case - Focus to be Determined	Q4
BWX Technologies, Inc.	United States of America	New Case - Focus to be Determined	Q3
DT Midstream, Inc.	United States of America	Focus on Carbon and Community Relations	Q3
EMCOR Group, Inc.	United States of America	New Case - Focus to be Determined	Q3
EQT Corp.	United States of America	New Case - Focus to be Determined	Q3
Kellanova	United States of America	New Case - Focus to be Determined	Q3
ORLEN SA	Poland	Focus on Carbon and Emissions, Effluents and Waste	Q3
PACCAR, Inc.	United States of America	New Case - Focus to be Determined	Q3
The Sherwin-Williams Co.	United States of America	Focus on E&S Impact of Products and Services	Q3
Advantage Energy Ltd.	Canada	Focus on Carbon Own Operations	Q2
Al Rajhi Co. for Cooperative Insurance	Saudi Arabia	Focus on ESG Integration Financials	Q2
China Eastern Airlines Corp. Ltd.	China	Focus on Corporate Governance and Business Ethics	Q2
China Resources Pharmaceutical Group Ltd.	Hong Kong	Focus on Product Governance and Access to Basic Services	Q2

COMPANY	COUNTRY	ISSUE	QUARTER
Daqin Railway Co., Ltd.	China	Focus on Corporate Governance and Business Ethics	Q2
Dominion Energy, Inc.	United States of America	Focus on Occupational Health and Safety and Emissions, Effluents and Waste	Q2
Frontline Plc	Cyprus	Focus on Occupational Health and Safety and Emissions, Effluents and Waste	Q2
Hainan Airlines Holding Co., Ltd.	China	Focus on Corporate Governance and Carbon Own Operations	Q2
International Petroleum Corp.	Canada	Focus on Carbon Own Operations	Q2
Mitsui & Co., Ltd.	Japan	Focus on Product Governance	Q2
Mouwasat Medical Services Co.	Saudi Arabia	Focus on Corporate Governance and Business Ethics	Q2
New Fortress Energy, Inc.	United States of America	Focus on Community Relations	Q2
PT Amman Mineral Internasional Tbk	Indonesia	Focus on Carbon and Emissions, Effluents and Waste	Q2
RBC Bearings, Inc.	United States of America	Focus on Carbon and Product Governance	Q2
Shimizu Corp.	Japan	Focus on Business Ethics	Q2
Spring Airlines Co., Ltd.	China	Focus on Corporate Governance and Carbon Own Operations	Q2
Storskogen Group AB	Sweden	Focus on Risk Assessment and ESG Disclosure	Q2
Superior Plus Corp.	Canada	Focus on Carbon Own Operations	Q2
TAISEI Corp.	Japan	Focus on Corporate Governance	Q2
Tourmaline Oil Corp.	Canada	Focus on Carbon and Emissions, Effluents and Waste	Q2
Advanced Petrochemical Co.	Saudi Arabia	Focus on Emissions, Effluents and Waste and Resource Use	Q1
Arcadium Lithium Plc	Ireland	Focus on Occupational Health and Safety and Emissions, Effluents and Waste	Q1

COMPANY	COUNTRY	ISSUE	QUARTER
Ayala Corp.	Philippines	Focus on Occupational Health and Safety	Q1
Chord Energy Corp.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Q1
Eastman Chemical Co.	United States of America	Focus on Carbon and Emissions, Effluents and Waste	Q1
ITOCHU Corp.	Japan	Focus on Product Governance	Q1
Legend Biotech Corp.	United States of America	Focus on Product Governance and Access to Basic Services	Q1
Maple Leaf Foods, Inc.	Canada	Focus on Land Use and Biodiversity Supply Chain	Q1
New Gold, Inc.	Canada	Focus on Occupational Health and Safety and Emissions, Effluents and Waste	Q1
Operadora de Sites Mexicanos SAB de CV	Mexico	Focus on Human Capital	Q1
Orla Mining Ltd.	Canada	Focus on Emissions, Effluents and Waste	Q1
PRIO SA	Brazil	Focus on Carbon Products and Services	Q1
PT Charoen Pokphand Indonesia Tbk	Indonesia	Focus on Corporate Governance and Carbon Own Operations	Q1
Trigano SA	France	Focus on Risk Assessment and Corporate Governance	Q1
Vicat SA	France	Focus on Corporate Governance and Business Ethics	Q1
WK Kellogg Co.	United States of America	Focus on Carbon and Product Governance	Q1

New Archived

COMPANY	COUNTRY	ISSUE	PREVIOUS STATUS	QUARTER
Boubyan Bank KSC	Kuwait	Focus on Risk Assessment and ESG Disclosure	Engage	Q4
Hess Corp.	United States	Focus on Carbon Products and Services	Engage	Q4
KOSÉ Corp.	Japan	Focus on Corporate Governance	Engage	Q4
MEG Energy Corp.	Canada	Focus on Carbon and Community Relations	Engage	Q4
Meta Platforms, Inc.	United States	Focus on Data Privacy and Security	Engage	Q4
PACCAR, Inc.	United States	New Case - Focus to be Determined	Engage	Q4
The Company for Cooperative Insurance	Saudi Arabia	Focus on ESG Integration Financials	Engage	Q4
Veren, Inc.	Canada	Focus on Carbon Products and Services	Engage	Q4
Rivian Automotive, Inc.	United States	Focus on Product Governance	Engage	Q3
Teledyne Technologies, Inc.	United States	Focus on Risk Assessment	Engage	Q3
The Kraft Heinz Co.	United States	Focus on Product Governance	Engage	Q3
Arcadium Lithium Plc	Ireland	Focus on Occupational Health and Safety and Emissions, Effluents and Waste	Engage	Q2
Kweichow Moutai Co., Ltd.	China	Focus on Corporate Governance	Engage	Q2
Lupin Ltd.	India	Focus on Risk Assessment and ESG Disclosure	Engage	Q2
Marathon Oil Corp.	United States	Focus on Carbon and Emissions, Effluents and Waste	Engage	Q2

COMPANY	COUNTRY	ISSUE	PREVIOUS STATUS	QUARTER
Microchip Technology, Inc.	United States	Focus on Product Governance	Engage	Q2
Regis Resources Ltd.	Australia	Focus on Risk Assessment and ESG Disclosure	Engage	Q2
Altria Group, Inc.	United States	Focus on Product Governance	Engage	Q1
Amazon.com, Inc.	United States	Focus on Risk Assessment and ESG Disclosure	Engage	Q1
Amorepacific Corp.	South Korea	Focus on ESG Disclosure	Engage	Q1
Cameco Corp.	Canada	Focus on Community Relations	Engage	Q1
Enerplus Corp.	Canada	Focus on Carbon Own Operations	Engage	Q1
Hap Seng Consolidated Bhd.	Malaysia	Focus on Carbon Own Operations	Engage	Q1
JSR Corp.	Japan	Focus on Corporate Governance	Engage	Q1
Saudi Basic Industries Corp.	Saudi Arabia	Focus on Carbon and Product Governance	Engage	Q1
Saudi Cement Co.	Saudi Arabia	Focus on ESG Disclosure	Engage	Q1

New Unresponsive

COMPANY	COUNTRY	ISSUE	QUARTER
Coal India Ltd.	India	Focus on Carbon and Community Relations	Q4
Eregli Demir ve Çelik Fabrikalari TAS	Turkey	Focus on Carbon Own Operations	Q4
Grupo Financiero Inbursa SAB de CV	Mexico	Focus on Risk Assessment and ESG Disclosure	Q4
Shanghai Pudong Development Bank Co., Ltd.	China	Focus on ESG Integration Financials	Q4
Guangdong Haid Group Co., Ltd.	China	Focus on Risk Assessment and ESG Disclosure	Q3

Universe Change Impact

COMPANY	COUNTRY	INDUSTRY	ISSUE	NOTES	QUARTER
Filo Corp.	Canada	Precious Metals	Focus on ESG Disclosure	Entity no longer eligible for Morningstar Sustainalytics' research. Previous status: Engage	Q3
Gulf Energy Development Public Co. Ltd.	Thailand	Utilities	Focus on Carbon Own Operations	Entity no longer eligible for Morningstar Sustainalytics' research. Previous status: Engage	Q3
Chesapeake Energy Corp.	United States	Oil & Gas Producers	Focus on Carbon and Emissions, Effluents and Waste	Entity no longer eligible for Morningstar Sustainalytics' research. Previous status: Engage	Q1
Southwestern Energy Co.	United States	Oil & Gas Producers	New Case - Focus to be Determined	Entity no longer eligible for Morningstar Sustainalytics' research. Previous status: Engage	Q1

Decarbonizing Canada's Oil and Gas Sector: Emissions, Transition Signals and Pathways

Othman Trid
Manager, Stewardship
Material Risk/Strategy & Risk Engagement
Morningstar Sustainalytics

Key Highlights:

- Reconciling Canada's decarbonization ambitions with ongoing and expanded fossil fuel production poses one of the most complex transition dilemmas among G7 countries.
- Without stronger measures, Canada's O&G sector is projected to fall well short of both 2030 and 2050 targets.
- The imbalance between emissions intensity, export dependency, and policy ambition underscores the need for the sector to align not only with Canada's climate goals but also with global transition expectations and investor risk frameworks.
- The most actionable decarbonization levers for Canadian producers sit in upstream operational emissions (scope 1 and 2), where methane, steam and power choices drive the bulk of near-term reductions.
- Key signals of progress are stronger operational emissions performance and transition-risk metrics that show decarbonization is being delivered, not just promised.

The Transition Dilemma

Canada is a top global oil and gas (O&G) producer and exporter, home to the world's third-largest proven oil reserves and ranked fourth in crude oil exports.[39,40] The sector represents a critical source of Canada's gross domestic product (GDP), trade surplus, and employment, particularly in Alberta, Saskatchewan, and Newfoundland & Labrador.[41] However, O&G is also Canada's top-emitting sector, responsible for 31% of national greenhouse gas (GHG) emissions as of the country's 2024 National GHG Inventory.[42]

Canada's Net- Zero Emissions Accountability Act enshrines a national net-zero target into law, mandating economy-wide carbon neutrality by 2050, with an interim goal of reducing emissions by 40-45% below 2005 levels by 2030.[43]

Reconciling Canada's decarbonization ambitions with the O&G sector's ongoing and expanded fossil fuel production poses a particularly complex transition dilemma.

This brief explores the challenges of decarbonizing Canada's oil and gas sector, focusing on upstream operational (scope 1 and 2) emissions and using Morningstar Sustainalytics data to assess transition readiness across Canadian O&G producers.

Within this context, it is essential to understand the composition and trajectory of the O&G sector emissions.

O&G Sector Emissions Composition and Trajectory

Scope 1 emissions, primarily from extraction, upgrading, and refining, dominate the sector's reported and regulated footprint. These emissions are tracked provincially, notably under Alberta's Technology Innovation and Emissions Reduction (TIER) program.[44] However, oil sands extraction remains among the most carbon-intensive extraction methods globally.

Scope 2 emissions, linked to purchased electricity and heat, are modest but still material depending on regional grid carbon intensity. In provinces lacking clean electricity baselines or renewable Power Purchase Agreements, or PPAs, these emissions can represent a non-trivial share.

The largest and most controversial emissions category for the O&G sector is scope 3, Category 11: Use of Sold Products. These emissions arise when fuels are combusted by end-users, typically outside Canada. While not captured in national inventories, they represent the vast majority of lifecycle GHG emissions impact. Regulatory frameworks such as the EU Corporate Sustainability Reporting Directive (CSRD) and IFRS S2 are increasingly requiring full value chain disclosures, making scope 3 a growing source of investor pressure.[45,46]

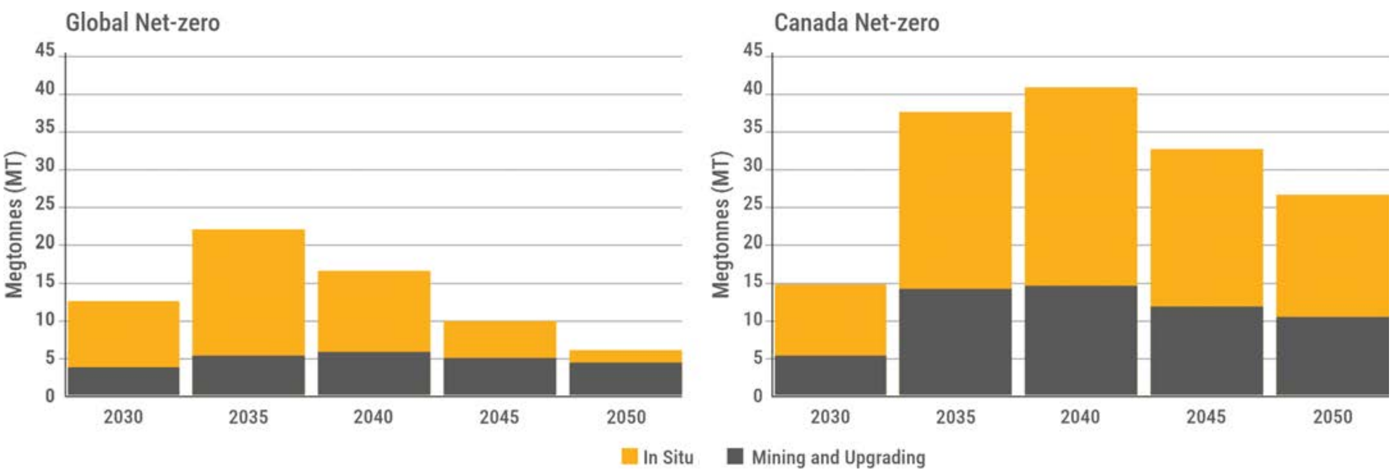
According to Environment and Climate Change Canada (ECCC) projections (2024), O&G sector emissions have remained relatively flat since 2005, with marginal improvements from methane controls offset by production growth.[47,48] Without stronger measures, Canada's O&G sector is projected to fall well short of both 2030 and 2050 targets. The International Energy Agency (IEA) reinforces this concern, noting that Canada remains among the highest per capita GHG emitters in the Organization for Economic Co-operation and Development (OECD), largely due to the scale and emissions intensity of its fossil fuel sector.[49] The imbalance between high emissions intensity, export dependence and policy ambition underscores the need for the sector to align with Canada's climate goals as well as global transition expectations and investor risk frameworks. Projections beyond 2030 highlight a widening gap between current policy trajectories and net-zero-aligned pathways.[50]

Decarbonization Pathways and Abatement Levers

Canada's O&G sector must address both operational emissions (scope 1 & 2) and downstream value chain emissions (scope 3) to remain economically relevant and environmentally compliant. The Pathways Alliance has emerged as the central initiative driving upstream decarbonization, targeting net-zero by 2050 and a 22 $MtCO_2e$ reduction by 2030.[51,52] Its primary focus is on operational emissions (scope 1 & 2), and it emphasizes large-scale deployment of Carbon Capture, Utilization & Storage (CCUS). According to the Alliance, CCUS is projected to contribute nearly half of the targeted 22 $MtCO_2e$ reduction by 2030, largely through foundational infrastructure like the proposed CO_2 trunkline between Fort McMurray and Cold Lake.[53,54]

Canada's policy scaffolding for CCUS meaningfully firmed up in 2025.[55] Budget 2025 extends the full CCUS investment tax credit (ITC) rates by five years, so higher rates apply to eligible costs through to the end of 2035, before stepping down over 2036–2040. The headline levels remain 60% for DAC capture, 50% for other capture and 37.5% for transport, storage and use (falling to 30%, 25%, and 18.75%, respectively after 2030).[56] This gives capture and storage assets that require lengthy planning and construction, a wider planning window and clearer economics. Combined with complementary infrastructure projects, namely emerging multi-shipper hubs, trunkline networks and blue-hydrogen capture projects, the extended Pathways incentives point to a broader CCUS build-out in Canada rather than a single-alliance story.[57,58,59]

Figure 1. GHGs Captured and Permanently Stored from the Oil Sands using CCUS - Global and Canada Net-Zero Scenarios



Source: Canada Energy Regulator (CER), Canada's Energy Future 2023 (EF2023) — Figure R.29, "GHGs captured and permanently stored from the oil sands using CCUS, Global and Canada Net-zero scenarios."

Note: Chart shows modeled annual CO_2 captured and permanently stored from oil-sands operations (stacked as In-situ and Mining & Upgrading) in megatons per year (Mt CO_2/yr) under two scenarios: Global Net-zero and Canada Net-zero. In Global Net-zero, capture is 12.5 Mt in 2030 and peaks at 22.5 Mt in 2036; in Canada Net-zero, capture is 15.0 Mt in 2030 and 45.0 Mt in 2037. Results are scenario-based (illustrative), not predictions; Global Net-zero aligns with an international 1.5 °C pathway (IEA NZE inputs), while Canada Net-zero uses slower global assumptions (IEA APS inputs). https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2023/canada-energy-futures-2023.pdf

Beyond CCUS, broader scope 1 and 2 emissions abatement levers include:

- Decarbonizing steam for in situ production: Lowering steam-to-oil ratios and reducing reliance on gas-fired steam through efficiency upgrades, solvent-assist and lower-carbon heat or steam sources, which are the largest driver of operational emissions in Alberta's oil sands.
- Electrification: Replacing fossil-fired equipment and onsite power with lower-carbon electricity in extraction, processing and upgrading, where grid access and costs allow.
- Fuel Switching: Including renewable natural gas (RNG), hydrogen blending, and process optimization.
- Methane Abatement: Leak detection and repair (LDAR), vapor recovery, and flaring minimization.

To meet the evolving expectations for scope 3 emission reductions, companies should be encouraged to:

- Quantify and disclose downstream emissions from sold hydrocarbons.
- Diversify portfolios with lower-carbon fuels such as RNG, sustainable aviation fuel (SAF), and clean hydrogen.
- Collaborate downstream on voluntary carbon accounting or fuel substitution strategies.

On the research side of Morningstar Sustainalytics, many of these decarbonization levers are already reflected in Morningstar Sustainalytics' work. The ESG Risk Rating captures them under the Carbon – Own Operations issue through indicators on GHG reduction programmes and carbon intensity, while the Low Carbon Transition Rating tracks longer-term transition strategy via Implied Temperature Rise and transition Value-at-Risk.

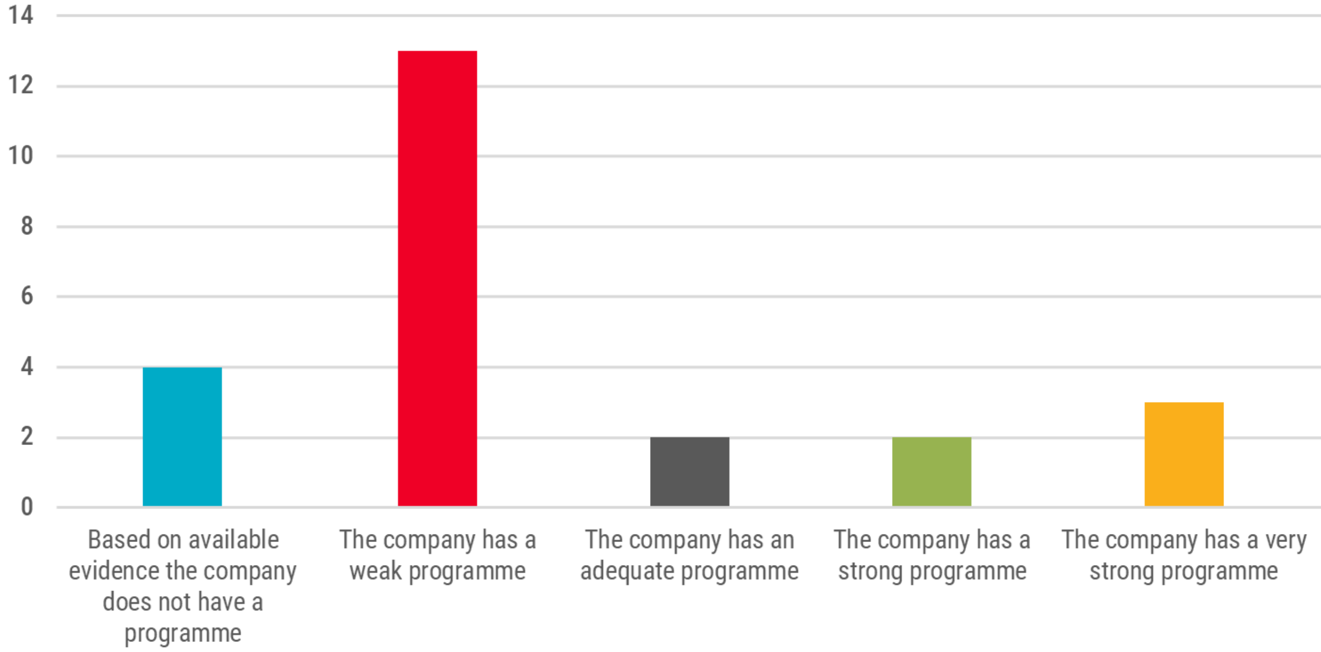
On the stewardship side, engagement conversations with Canadian oil and gas issuers point in the same direction. Large producers say they remain committed to CCUS and broader operational decarbonization investments, with capital plans often contingent on federal incentives. At the same time, several companies indicate they are cautious about how much detail they disclose on forward-looking climate projects and marketing claims, citing perceived greenwashing risk under Canada's evolving Competition Act framework, including Bill C-59. The result is a gap between the transition planning discussed with investors and what appears in public reporting, making it harder for markets to assess execution risk and compare strategies on a like-for-like basis.

Strategic Performance Signal

Morningstar Sustainalytics' ESG Risk Rating offers a data-driven lens into how well Canadian O&G companies are managing their GHG emissions-related risks and aligning with decarbonization expectations. While the sector is under increasing investor scrutiny, performance across key indicators remains uneven, revealing notable gaps between climate ambition and implementation.

Among companies that describe their approach to decarbonization, most sit at an early or mid-stage of programme maturity, with only a small cohort showing a clearly mature, well-built plan. In Figure 2, over half of the sample is coded as having a "weak" programme, and only a handful reach "strong" or "very strong" status. In practice, that means many peers have policies and intentions on paper, but fewer are running a plan with dated actions, measurable checkpoints, and proof that reductions are showing up in operations. See Figure 2.

Figure 2. Emissions Reduction Programme Maturity for Canadian O&G Companies



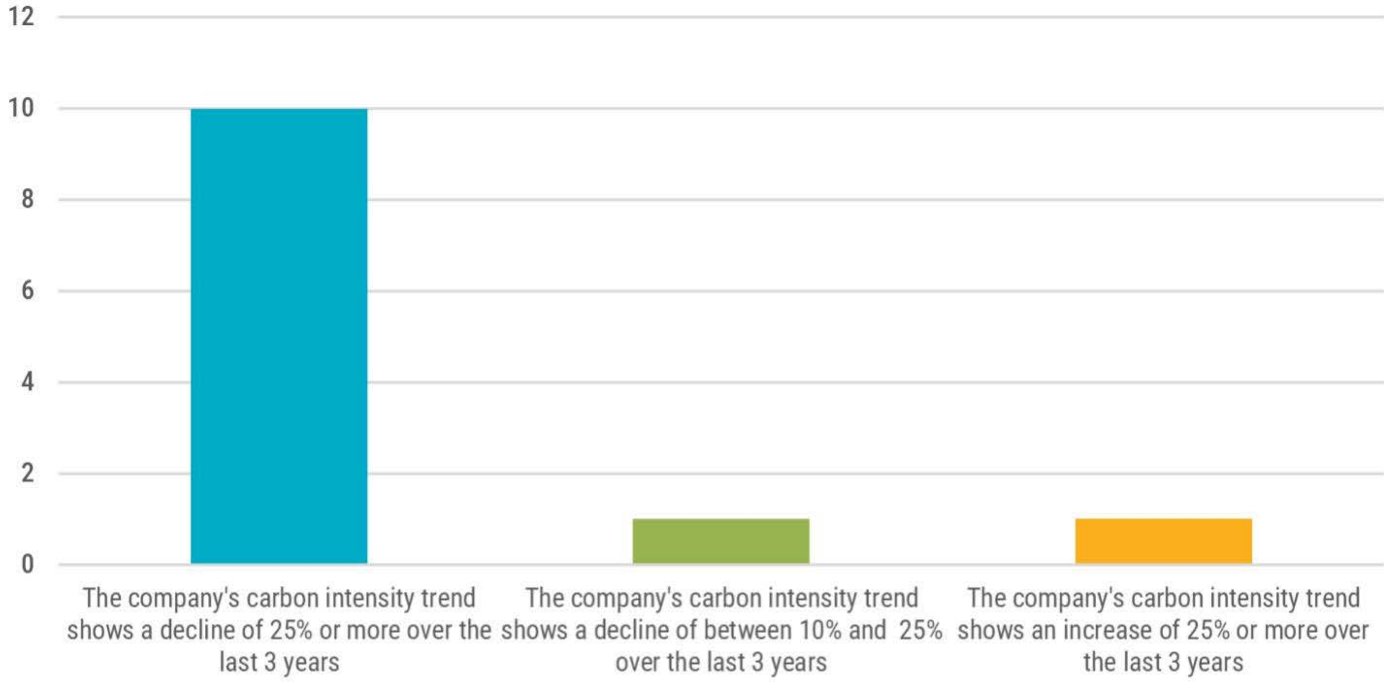
Source: ESG Risk Ratings dataset – Oil & Gas Producers (Canada), indicator E.1.7.0 "GHG Reduction Programme – Answer Category"; n = 24 companies; author's analysis.
Note: Bars show the distribution of Canadian oil & gas producers that provided a response to the GHG Reduction Programme indicator; categories reflect Sustainalytics' original labels (no programme, weak, adequate, strong, very strong).

As climate policies tighten and financing continues to become more selective, the difference between "policy" and "delivery" shows up in operational emissions intensity, operating costs, and project timelines. In the O&G sector, the near-term operational playbook is practical: tackling/prioritizing methane first (find-and-fix, equipment swaps), decarbonizing steam for in situ oil sands production through lower steam-to-oil ratios and efficiency gains, targeted electrification where it makes financial sense, and carbon capture and storage (CCS) only where capture rates, storage access, and cost per tonne are competitive. Issuers that can demonstrate these elements on a timetable and with measurable results signal lower execution risk. Signs of reduction programme maturity to watch for in the next 12-24 months:

- A dated decarbonization roadmap with actions and checkpoints (not just a 2030 headline).
- Capital committed to the highest impact levers, for example methane, decarbonizing in situ steam, electrification, carbon capture and storage where viable.
- Measured operating reductions linked to those levers, for example methane cuts from field data, lower steam-to-oil ratios and reduced flaring, not only modelled estimates.
- Independent verification of results and a short variance-to-plan explanation.
- Sustained declines in GHG emissions intensity metrics.

Carbon intensity is the scoreboard of operations: it signals whether emissions are falling per unit of output. Among the 12 Canadian producers with a disclosed three-year trend, 10 report a clear decline in carbon intensity, one shows only a smaller improvement, and one shows a deterioration in intensity (Figure 3). In the latter case, expansion and operating changes are outpacing mitigation.

Figure 3. Three-Year Carbon Intensity Change for Canadian O&G Producers with Disclosed Trends



Source: Morningstar Sustainalytics ESG Risk Ratings dataset – Oil & Gas Producers (Canada), indicator E.1.10 "Carbon Intensity Trend — Answer Category"; *n* = 12 companies; author's analysis.
Note: Bars show the number of Canadian oil and gas producers whose carbon emissions intensity trend is classified under E.1.10 as (i) a decline of 25% or more over the last three years, (ii) a decline between 10% and 25% over the last three years, or (iii) an increase of 25% or more over the last three years. Only companies for which Sustainalytics reports a percentage-change trend category are included (*12 out of 24 producers in the dataset*).

The pace of GHG intensity reduction is highly context-dependent – asset mix, power availability and cost, and integration after recent projects or M&A all shape results – so companies should be able to offer concrete explanations for any setbacks or spikes. In the near term, two signals matter most: on the operational side, emissions-intensity reductions that outpace production growth; and on the strategic side, measurable capital diversification into lower-carbon products and services that can bend future scope 3 exposure.

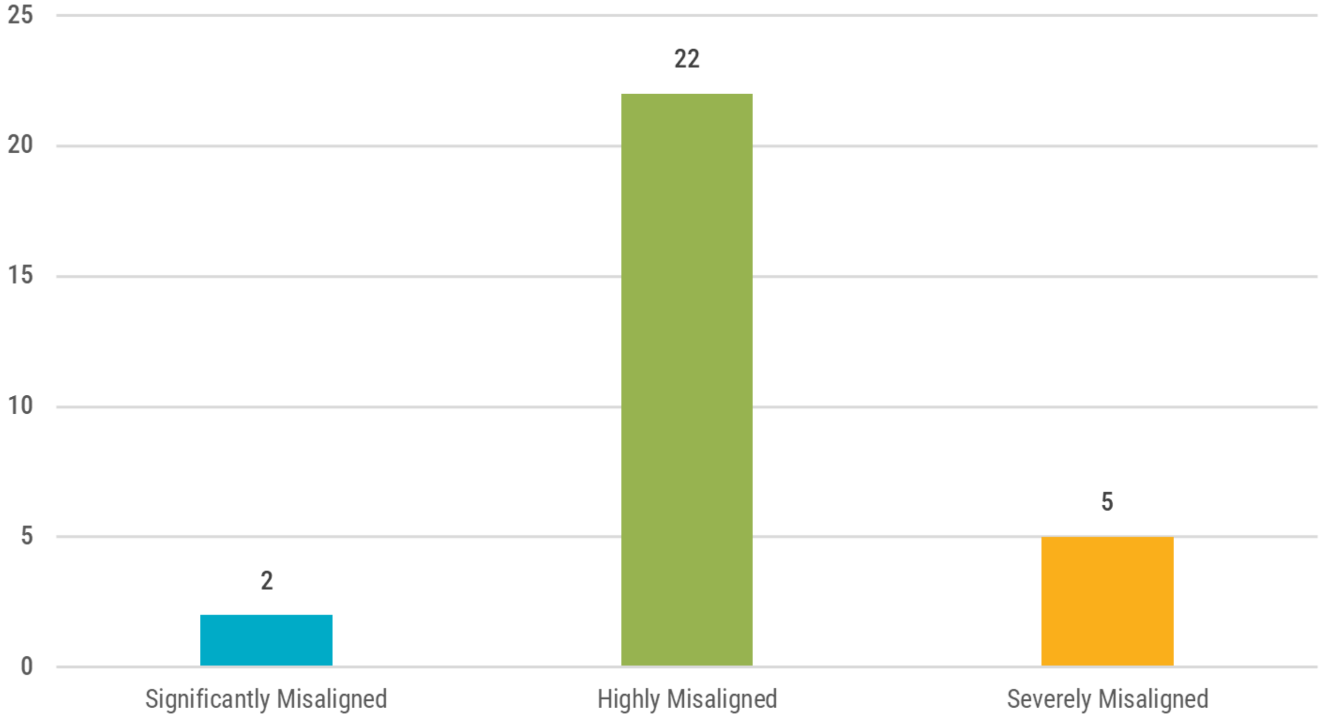
Transition Readiness Through the Low Carbon Transition Rating (LCTR) Lens

Canada's O&G companies are increasingly priced through a transition lens: policy signals keep firming (carbon pricing, methane standards, cleaner power, and an emissions-cap design taking shape); customers are tilting procurement toward lower-intensity supply and asking for verification; and financing is rewarding credible, near-term progress while charging for plans that don't land in operations.[60,61] In this context, valuations and access to capital are likely to hinge less on long-dated promises and more on whether a company's strategy is transition-ready and how exposed its balance sheet is to strengthening policy and market pressures.

To cross-check transition readiness with data, Morningstar Sustainalytics' Low Carbon Transition Rating (LCTR) offers a simple lens on two things the market already watches:

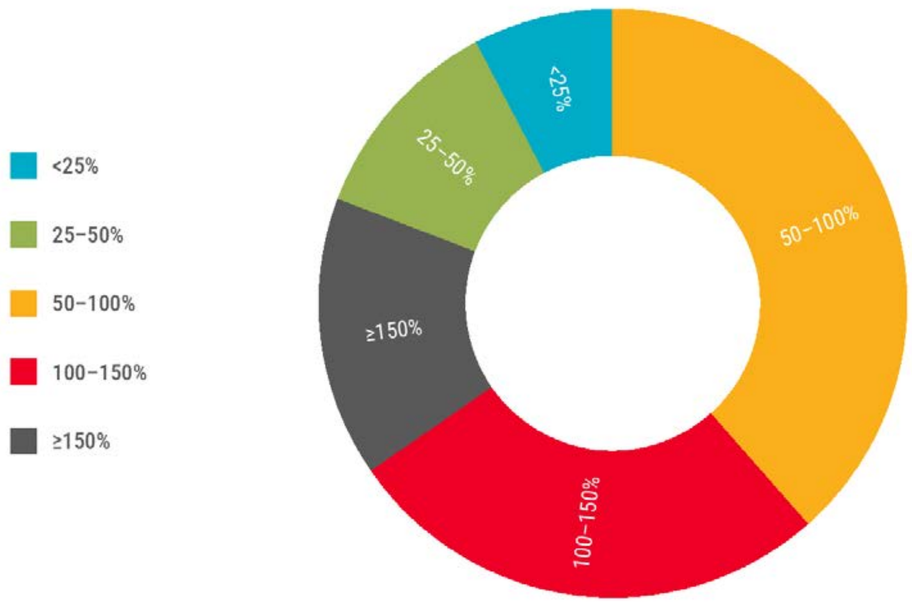
- Implied Temperature Rise (ITR): Evaluates if current decarbonization plans are consistent with a Paris-type pathway, directionally speaking. See Figure 4.
- Transition Exposure (share of enterprise value at risk): Analyzes how sensitive enterprise values are if transition pressures bite. See Figure 5.

Figure 4. Implied Temperature Rise consistent with 1.5 trajectory for Canadian O&G companies



Source: Morningstar Sustainalytics Low Carbon Transition Ratings (LCTR) dataset – Canadian oil & gas issuers, *Implied Temperature Rise (ITR) Category*; *n* = 29 issuers; author's analysis.
Note: Bars show the number of Canadian oil & gas issuers in each Implied Temperature Rise (ITR) category of Sustainalytics' Low Carbon Transition Rating. The ITR expresses the temperature to which the world would warm, relative to pre-industrial levels, if all companies followed a similar emissions pathway; misalignment categories ("Significantly Misaligned", "Highly Misaligned", "Severely Misaligned") indicate progressively greater deviation from a net-zero-aligned pathway.

Figure 5. Distribution of Canadian O&G Companies By Percentage of Enterprise Value at Risk



Source: Morningstar Sustainalytics Low Carbon Transition Ratings (LCTR) dataset – Canadian oil and gas issuers, Total Value-at-Risk (VaR) relative to enterprise value including cash (EVIC), n = 26 issuers; author's analysis.
Note: Chart shows the distribution of Canadian oil and gas issuers by total transition Value-at-Risk as a percentage of EVIC. LCTR's VaR metric estimates the present value of cash flows at risk from a transition to a low-carbon economy, including market and policy risks to 2050 and terminal value at 2050. Bands used are <25%, 25–50%, 50–100%, 100–150% and ≥150% of EVIC.

Taken together, the ITR and VaR snapshots say the same thing: most Canadian O&G company decarbonization strategies are still catching up to policy and buyer expectations, and transition exposure is uneven. Figure 4 shows that all 29 issuers fall into misalignment buckets on implied temperature rise, with the large majority classified as highly misaligned and a smaller group as severely misaligned. Figure 5 then shows how that translates into value at risk: the majority stand to lose between 50% and 150% of enterprise value under scenarios of tightening policy and demand, which indicates higher sensitivity to transition shocks. A smaller group lands below 50%, suggesting more headroom if policy tightens or demand shifts.

Decarbonizing Canada's Upstream Will Take Real Capex, not Slogans

Decarbonizing Canada's upstream will take real capex, not slogans. According to BloombergNEF's Energy Transition Trends 2025 report, global capital is moving, but not fast enough or into all the right places.[62]

Energy-transition investment reached about USD 2.1 trillion globally in 2024, more than double 2020 levels, but with growth slowing to roughly 11% year-on-year.

Mature technologies such as renewables, power grids, electric vehicles and energy storage attracted around US$1.9 trillion, or roughly 93% of the total, and growing about 15% over 2023 levels. By contrast, "emerging" solutions such as hydrogen, CCS, electrified heat and clean industry attracted only USD 154 billion, about 7% of the total, and saw investment fall 23% in 2024. This underscores how hard it remains to scale newer solutions without policy support and de-risking tools. Canada is part of this pattern: BNEF notes that Canadian energy-transition investment reached about USD 35 billion in 2024, up 19% year-on-year, but like other markets most of this is still flowing to proven technologies rather than to harder-to-finance options such as CCS and clean industry.

For Canadian oil and gas producers, that makes the order of operations relatively straightforward.

- Methane remains the cheapest, fastest wedge as tightening policy and satellite visibility make it both a compliance and reputational risk.
- Decarbonizing steam for in situ oil sands production, alongside broader efficiency and power choices, does the next tranche of work through lower steam-to-oil ratios, better heat integration and targeted electrification where grid connections and power purchase agreements (PPAs) or virtual power purchase agreements (VPPAs) are bankable.
- Fuel switching and optimisation can further reduce combustion emissions in remaining thermal and power applications.
- The big moves such as gas-processing capture, site-wide CCS or blue-hydrogen by-product capture tend to become investable only when stacked with carbon contracts for difference (CCfDs) or similar price protection, investment tax credits and, where relevant, long-dated offtake.
- Clean-power interconnections follow a similar "de-risk, then finance" pattern, and more Canadian transactions now include Indigenous partnership structures that can improve durability and broaden the investor base.

To meet net-zero pathways and investor expectations, Canadian O&G companies should build credibility now, deliver operating cuts this decade and shift portfolios over time, always tied to cash-flow resilience and disciplined capital use.

Endnotes

1 Amar Causevic and Marta Mancheva. "Industrial-Scale Decarbonization in the EU: Stewardship Field Notes From Germany, France and Spain," *Morningstar Sustainalytics*, Published March 11, 2025, https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/industrial-scale-decarbonization-eu--stewardship-field-notes-from-germany--france-spain.

2 Saddiqah Adamu and Shane Tiley. "The Cost of Climate Indifference: A Pragmatic Look at the Climate and Emergency Preparedness of US Companies," *Morningstar Sustainalytics*, Published February 20, 2025, https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/the-cost-of-climate-indifference--a-pragmatic-look-at-the-climate-and-emergency-preparedness-of-us-companies.

3 Othman Trid and Shane Tiley. "AI's Energy Demand Meets US Utility Readiness: A Look at Carbon Intensity and Transition Risk," *Morningstar Sustainalytics*, July 4, 2025, https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/ai-s-energy-demand-meets-us-utility-readiness--a-look-at-carbon-intensity-and-transition-risk.

4 Wakako Mizuta. "Three Key Insights: Analyzing Japan's Executive Remuneration Programmes," *Morningstar Sustainalytics,* Material Risk Engagement 2025 Q2 Report, https://globalaccess.sustainalytics.com/#/ga/research/engagement/materialRisk.

5 Joe Attwood and Shane Tiley. "Beyond Compliance: Managing Multi-Jurisdictional Corporate Risk Across Dynamic Regulatory Environments," *Morningstar Sustainalytics*, Material Risk Engagement 2025 Q3 Report, https://globalaccess.sustainalytics.com/#/ga/research/engagement/materialRisk.

6 Tania Nadyseva. "Oil that Made Norway, Norway and the ESG Questions Shaping its Arctic Future," *Morningstar Sustainalytics*, Material Risk Engagement 2025 Q4 Report, https://globalaccess.sustainalytics.com/#/ga/research/engagement/materialRisk.

7 Othman Trid. "Decarbonizing Canada's Oil and Gas Sector: Emissions, Transition Signals and Pathways," *Morningstar Sustainalytics*, Material Risk Engagement 2025 Q4 Report, https://globalaccess.sustainalytics.com/#/ga/research/engagement/materialRisk.

8 Cases span different engagement statuses: Engage – for ongoing engagements, Unresponsive – for companies which for more than 24 months were not or poorly responding to our engagement attempts and shown poor or none progress; Resolved – for previously active engagements with engagement objectives achieved and with the score moved to below 28-threshold of our engagements; Archived – closed due to score drop without being responsive or removal from the engagement universe.

9 "SA Edges Closer to Mandatory Sustainability Reporting Under Global ISSB Standards," Moonstone Information Refinery, published July 24, 2025, https://www.moonstone.co.za/sa-edges-closer-to-mandatory-sustainability-reporting-under-global-issb-standards/.

10 The Institute of Risk Management South Africa (IRMSA), "Risk Report 2025 – ESG and Assurance Gaps," published February 2025, https://irmsa-risk-report.co.za/2025/files/downloads/IRMSA-Risk-Report-2025.pdf.

11 IFRS Foundation, "Jurisdictional Profile: Türkiye," updated June 12, 2025, https://www.ifrs.org/content/dam/ifrs/publications/sustainability-jurisdictions/pdf-profiles/turkiye-ifrs-profile.pdf.

12 CDP Turkey, "CDP Türkiye 2024 Climate & Nature Report," published March 2025, https://cdpturkey.sabanciuniv.edu/sites/cdpturkey.sabanciuniv.edu/files/cdp_turkiye_2024_climate_nature_report3.pdf.

13 "Leadership Vision," Public Investment Fund (PIF), accessed December 10, 2025, https://www.pif.gov.sa/en/private-sector-hub/leadership-vision/.

14 Amr ElAlfy, et al. "Global Finance," AIMS Press, no. 7 (2025): 40-82. DOI: 10.3934/GF.2025003, https://www.aimspress.com/article/doi/10.3934/GF.2025003?viewType=HTML.

15 "Exchange Publishes Conclusions on Climate Disclosure Requirements," Hong Kong Exchanges and Clearing Limited, updated April 19, 2024, https://www.hkex.com.hk/News/Regulatory-Announcements/2024/240419news?sc_lang=en.

16 "China Expands National Emissions Trading Scheme to Cement, Steel, and Aluminum," Ministry of Ecology and Environment of the People's Republic of China, published March 26, 2025, https://www.mee.gov.cn/zcwj/zcjd/202503/t20250326_1104769.shtml.

Endnotes (cont.)

17 “Special Feature Page on Sustainability Information Disclosure,” Financial Services Agency, accessed December 10, 2025, https://www.fsa.go.jp/policy/kaiji/sustainability-kaiji.html.

18 “Public Comment on the Draft Cabinet Office Order Partially Amending the Cabinet Office Order on Disclosure of Corporate Affairs, etc.," Financial Services Agency, accessed December 10, 2025, https://www.fsa.go.jp/news/r7/shouken/20251126/20251126.html.

19 Financial Services Agency (2025), “Financial Services Policy for Fiscal Year 2025,” https://www.fsa.go.jp/news/r7/20250829/strategic_priorities_2025_main.pdf.

20 “India’s Air Pollution: Why Delhi’s Air Quality Is So Bad,” BBC News, published November 2, 2021, https://www.bbc.com/news/world-asia-india-59125143.

21 “Simplification: Council agrees position on sustainability reporting and due diligence requirements to boost EU competitiveness,” Council of the European Union, published June 23, 2025, https://www.consilium.europa.eu/en/press/press-releases/2025/06/23/simplification-council-agrees-position-on-sustainability-reporting-and-due-diligence-requirements-to-boost-eu-competitiveness/.

22 “German Supply Chain Due Diligence Act, ”Federal Ministry of Justice, published July 16, 2021, https://www.gesetze-im-internet.de/lksg.

23 "Resolução CVM 217: Aprova o Pronunciamento Técnico CBPS 01 – Requisitos gerais para divulgação de informações financeiras relacionadas à sustentabilidade," Comissão de Valores Mobiliários (CVM), https://conteudo.cvm.gov.br/legislacao/resolucoes/anexos/200/resol217.htm.

24 "Resolução CVM 218: Aprova o Pronunciamento Técnico CBPS 02 – Divulgação de informações financeiras relacionadas ao clima," Comissão de Valores Mobiliários (CVM), https://conteudo.cvm.gov.br/legislacao/resolucoes/anexos/200/resol218.htm.

25 B3 S.A. – Brasil, Bolsa, "Balcão.Regulamento de Emissores (incluindo Anexo B – Medidas ASG)," https://www.b3.com.br/data/files/3B/31/0A/CF/394798101DBF7498AC094EA8/Regulamento%20de%20Emissores%20_20.07.2023_.pdf.

26 Normas de Información de Sostenibilidad (NIS A-1 y NIS B-1)," Consejo Mexicano de Normas de Información Financiera (CINIF), https://www.cinif.org.mx/.

27 "Reformas en materia de mercado de valores y revelación de información de sostenibilidad para emisoras de valores," Diario Oficial de la Federación (DOF), https://www.dof.gob.mx/#gsc.tab=0.

28 "Anexo N CUE – Instructivo para la elaboración del reporte anual de emisoras con valores inscritos en el Registro Nacional de Valores," Comisión Nacional Bancaria y de Valores (CNBV), https://www.cnbv.gob.mx/Anexos/Anexo%20N%20CUE.pdf.

29 "Mexico’s Sustainable Taxonomy – overview and key features," Sustainable Banking and Finance Network (SBF Network), https://www.sbfnetwork.org/12473-2.

30 Taylor Pullins. ”US Withdrawal from the Paris Agreement: Impact and Next Steps,” *White & Case*, published January 21, 2025, https://www.whitecase.com/insight-alert/us-withdrawal-paris-agreement-impact-and-next-steps.

31 “Executive Order: Temporary Withdrawal of All Areas on the Outer Continental Shelf from Offshore Wind Leasing and Review of the Federal Government’s Leasing and Permitting Practices for Wind Projects,” Holland and Knight, published January 20, 2025, https://www.hklaw.com/en/insights/publications/2025/01/executive-order-temp-withdrawal-of-areas-on-outer-continental-shelf.

32 “Ending Radical and Wasteful Government DEI Programs and Preferencing,” The White House, January 20, 2025, https://www.whitehouse.gov/presidential-actions/2025/01/ending-radical-and-wasteful-government-dei-programs-and-preferencing/.

Endnotes (cont.)

33 “Declaring A National Energy Emergency,” The White House, published January 20, 2025, https://wwwwhitehouse.gov/presidential-actions/2025/01/declaring-a-national-energy-emergency/.

34 Anna Pinedo. “Regulatory Climate Shift: Updates on the SEC Climate-Related Disclosure Rules”. Mayer Brown LLP, published September 30, 2025, https://corpgov.law.harvard.edu/2025/09/30/regulatory-climate-shift-updates-on-the-sec-climate-related-disclosure-rules/.

35 “ESG round-up: US withdraws proposed climate rules for federal contractors,” Responsible Investor, published January 15, 2025, https://www.responsible-investor.com/esg-round-up-us-withdraws-proposed-climate-rules-for-federal-contractors/.

36 Morningstar Sustainalytics Stewardship Services – Pre-Engagement Compliance notice introduced in Q1 2025 in response to evolving SEC and regulatory expectations in the US.

37 "Launch of CSDS 1 General Requirements for Disclosure of Sustainability-related Financial Information and CSDS 2 Climate-related Disclosures," Canadian Sustainability Standards Board (CSSB), https://www.frascanada.ca/en/cssb/news-listings/csds1_csds2_launch.

38 “CSA Updates Market on Approach to Climate-Related and Diversity-Related Disclosure Projects,” Canadian Securities Administrators (CSA), published April 23, 2025. https://www.securities-administrators.ca/news/csa-updates-market-on-approach-to-climate-related-and-diversity-related-disclosure-projects/.

39 "Oil Resources," Natural Resources Canada, last modified November 28, 2023, https://natural-resources.canada.ca/energy-sources/fossil-fuels/oil-resources.

40 "Top 10 countries that export the most oil in 2025," CNBC TV18, accessed December 8, 2025, https://www.cnbctv18.com/photos/world/top-10-countries-that-export-the-most-oil-in-2025-19778938-3.htm.

41 Statistics Canada, "Crude oil and natural gas: analysis of 2020," Economic and Social Reports, published July 21, 2021, https://www150.statcan.gc.ca/n1/pub/36-28-0001/2021007/article/00003-eng.pdf.

42 "Where Canada’s greenhouse gas emissions come from: 2024 National Greenhouse Gas Inventory," Government of Canada, accessed December 8, 2025, https://www.canada.ca/en/environment-climate-change/news/2024/05/where-canadas-greenhouse-gas-emissions-come-from-2024-national-greenhouse-gas-inventory.html.

43 "Canadian Net-Zero Emissions Accountability Act," Government of Canada, accessed December 8, 2025, https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050/canadian-net-zero-emissions-accountability-act.html.

44 "Technology Innovation and Emissions Reduction System," Government of Alberta, accessed December 8, 2025, https://www.alberta.ca/technology-innovation-and-emissions-reduction-system.

45 "Corporate Sustainability Reporting," European Commission, accessed December 8, 2025, https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en.

46 "Climate-related Disclosures," IFRS Foundation, accessed December 8, 2025, https://www.ifrs.org/projects/completed-projects/2023/climate-related-disclosures/.

47 "Greenhouse gas emissions projections," Government of Canada, accessed December 8, 2025, https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions-projections.html.

48 "Greenhouse gas emissions projections," Government of Canada, accessed December 8, 2025, https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions-projections.html.

Endnotes (cont.)

49 "Canada," International Energy Agency, accessed December 8, 2025, https://www.iea.org/countries/canada.

50 "Canada's Energy Future: Scenarios – Energy Demand," Canada Energy Regulator, accessed December 8, 2025, https://apps2.cer-rec.gc.ca/energy-future/.

51 "Pathways Alliance," Pathways Alliance, accessed December 8, 2025, https://pathwaysalliance.ca/.

52 Deborah Jaremko, "Pathways Alliance injects $10 million to advance oil sands CCS pipeline," Canadian Energy Centre, published March 3, 2023, https://www.canadianenergycentre.ca/pathways-alliance-injects-10-million-to-advance-oil-sands-ccs-pipeline/.

53 Chris Varcoe, "'Fish or Cut Bait' — Critical Year Ahead for Pathways Alliance's $16.5B Carbon Capture Network," Calgary Herald, published December 31, 2024, https://calgaryherald.com/opinion/columnists/varcoe-pathways-alliance-carbon-capture-network-critical-year.

54 "Pathways Alliance CO_2 Transportation Network and Storage Hub Project," Canadian Impact Assessment Registry, last updated December 20, 2024, https://iaac-aeic.gc.ca/050/evaluations/proj/89090.

55 "Chapter 1: Building a Stronger Canadian Economy," Department of Finance Canada, Budget 2025, last modified November 4, 2025, https://budget.canada.ca/2025/report-rapport/chap1-en.html.

56 "Carbon Capture, Utilization, and Storage (CCUS) Investment Tax Credit (ITC)," Canada Revenue Agency, last modified October 18, 2024, https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/corporations/business-tax-credits/clean-economy-itc/carbon-capture-itc.html.

57 "Open Access Wabamun Carbon Hub," Enbridge Inc., accessed December 8, 2025, https://www.enbridge.com/projects-and-infrastructure/projects/open-access-wabamun-carbon-hub.

58 Phil Heidenreich. "New Alberta Carbon Capture Project Now Fully Operational," Global News, published June 2, 2020, https://globalnews.ca/news/7019818/alberta-carbon-trunk-line-capture-emissions-sturgeon-refinery/.

59 "Air Products Announces Multi-Billion Dollar Net-Zero Hydrogen Energy Complex in Edmonton, Alberta, Canada," Air Products, published June 9, 2021, https://www.airproducts.com/company/news-center/2021/06/0609-air-products-net-zero-hydrogen-energy-complex-in-edmonton-alberta-canada.

60 "Oil and Gas Sector Greenhouse Gas Pollution Cap," Government of Canada, last modified March 14, 2025, https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/oil-gas-emissions-cap.html.

61 Ekaterina Sycheva. "Advancing the Energy Transition with Customer Demand," Boston Consulting Group, published September 3, 2024, https://www.bcg.com/publications/2024/advancing-the-energy-transition-with-customer-demand.

62 "Energy Transition Investment Trends," BloombergNEF Insights, accessed December 8, 2025, https://about.bnef.com/insights/finance/energy-transition-investment-trends/.

About Morningstar Sustainalytics and Contacts

Morningstar Sustainalytics is a leading ESG data, research, and ratings firm that supports investors around the world with the development and implementation of responsible investment strategies. For more than 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Morningstar Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG information and assessments into their investment processes. The firm also works with hundreds of companies and their financial intermediaries to help them consider material sustainability factors in policies, practices, and capital projects. Morningstar Sustainalytics has analysts around the world with varied multidisciplinary expertise across more than 40 industry groups. For more information, visit www.sustainalytics.com.

Do you have any questions regarding our Stewardship Services?
Contact us today to connect with our team of experts.
Learn more at www.sustainalytics.com or email at engagement.support@sustainalytics.com.

Europe:
Amsterdam (+31) 20 205 00 00
Stockholm (+46) 8 505 323 33
London (+44) 20 3514 3123
Frankfurt (+49) 69 3329 6555
Paris (+33) 1 184880642

Americas:
Boston (+1) 617 603 3321
New York (+1) 212 500 6468
Toronto (+1) 416 861 0403

Asia Pacific:
Sydney (+61) 2 8320 9436
Tokyo (+81) 3 4510 7979

MORNINGSTAR® | SUSTAINALYTICS