PRI Principles for Responsible Investment

UN environment programme finance initiative | United Nations Global Compact

An investor initiative in partnership with UNEP Finance Initiative and UN Global Compact

BRIEFING PAPER

CLIMATE DISCLOSURE RULES AND STANDARDS: A COMPARATIVE ANALYSIS

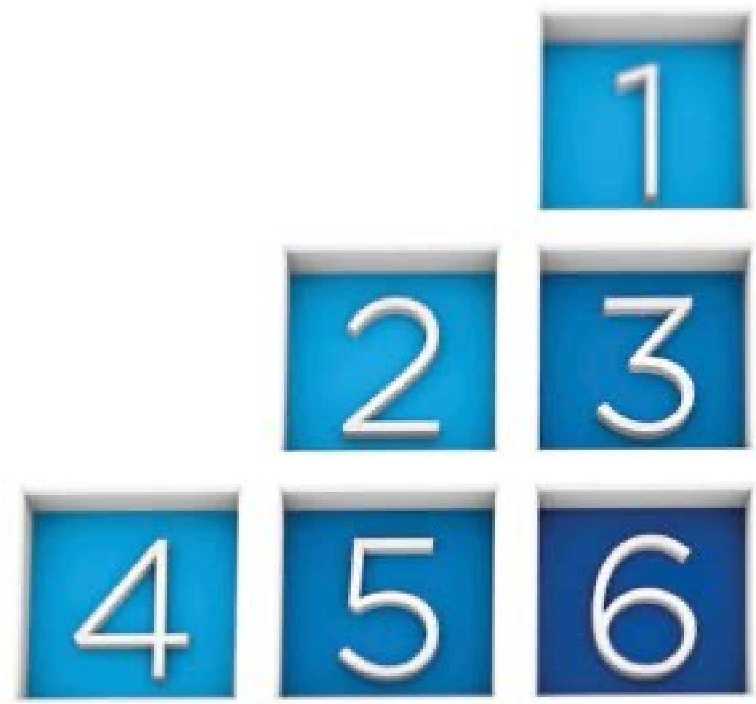
JUNE 2024

THE SIX PRINCIPLES

PREAMBLE TO THE PRINCIPLES

As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time). We also recognise that applying these Principles may better align investors with broader objectives of society. Therefore, where consistent with our fiduciary responsibilities, we commit to the following:

1. We will incorporate ESG issues into investment analysis and decision-making processes.
2. We will be active owners and incorporate ESG issues into our ownership policies and practices.
3. We will seek appropriate disclosure on ESG issues by the entities in which we invest.
4. We will promote acceptance and implementation of the Principles within the investment industry.
5. We will work together to enhance our effectiveness in implementing the Principles.
6. We will each report on our activities and progress towards implementing the Principles.



PRI's MISSION

We believe that an economically efficient, sustainable global financial system is a necessity for long-term value creation. Such a system will reward long-term, responsible investment and benefit the environment and society as a whole.

The PRI will work to achieve this sustainable global financial system by encouraging adoption of the Principles and collaboration on their implementation; by fostering good governance, integrity and accountability; and by addressing obstacles to a sustainable financial system that lie within market practices, structures and regulation.

INTRODUCTION

The Principles for Responsible Investment (PRI) works with its international network of signatories to put the six Principles for Responsible Investment into practice. Its goals are to understand the investment implications of environmental, social and governance (ESG) issues and to support signatories in integrating these issues into investment and ownership decisions. The PRI acts in the long-term interests of its signatories, of the financial markets and economies in which they operate and ultimately of the environment and society as a whole.

The six Principles for Responsible Investment are a voluntary and aspirational set of investment principles that offer a range of possible actions for incorporating ESG issues into investment practice. The Principles were developed by investors, for investors. In implementing them, signatories contribute to developing a more sustainable global financial system.

ABOUT THIS BRIEFING PAPER

In 2022 the PRI published a briefing paper comparing draft climate disclosure rules and standards from the IFRS Foundation's International Sustainability Standards Board (ISSB), the US Securities and Exchange Commission (SEC) and the European Financial Reporting Advisory Group (EFRAG).

Now that these have been finalised, we are publishing an updated version of this paper. The aim is to help investors understand similarities and differences across climate disclosures to be issued by portfolio companies subject to each rule and standard. This paper exists alongside other bilateral comparisons of the rules and standards, such as interoperability guidance published by EFRAG and the IFRS Foundation.

While our paper on draft rules and standards used the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) as a comparative baseline, this paper uses the ISSB standards instead. This is because the TCFD has since disbanded, and the IFRS Foundation has taken over responsibility from the TCFD for monitoring progress on companies' climate disclosures. Further, the International Organisation of Securities Commissions (IOSCO) endorsed the ISSB standards and recommended that member jurisdictions consider ways to adopt, apply or be informed by them. Therefore, while the TCFD recommendations continue to be used, the ISSB standards will become more prominent in the future, making them a better comparative baseline at this time. A comparison of each rule or standard with the TCFD recommendations can be found in the Appendix.

The paper focuses on disclosure requirements related to risks and opportunities, captures disclosures that would be required where material, and summarises structural features. Bracketed text refers to pages or paragraphs in cited rules or standards.

For more information, contact:

René van Merrienboer

Director, Sustainable Systems

rene.van-merrienboer@unpri.org

Benjamin Taylor

Senior Analyst, Driving Meaningful Data

benjamin.taylor@unpri.org

CONTENTS

EXECUTIVE SUMMARY

This paper outlines similarities and differences in structural features and requirements of:

- Climate-specific rules and standards:
  - The Enhancement and Standardization of Climate-Related Disclosures for Investors (SEC rule) – climate disclosure requirements adopted by the US SEC for companies.
  - IFRS S2 - Climate-related Disclosures (IFRS S2) – ISSB standard with climate reporting requirements.
  - ESRS E1 - Climate change (ESRS E1) – European Sustainability Reporting Standard (ESRS) specifying climate disclosure requirements under the EU Corporate Sustainability Reporting Directive (CSRD).
- Standards for reporting on climate and other sustainability issues from the ISSB (IFRS S1 - General Requirements for Disclosure of Sustainability-related Financial Information) and the European Commission (ESRS 1 - General requirements and ESRS 2 - General disclosures).

COMPARISON OF STRUCTURAL FEATURES

From a structural perspective the rules and standards have important similarities.

- **Reporting users:** Investors and other providers of capital are the primary users of reporting under the SEC rule and ISSB standards. Under the ESRS investors are one of many potential users, including but not limited to business partners, trade unions and civil society.
- **Presentation:** Disclosure requirements in the SEC rule and ISSB standards are structured across the four pillars of the TCFD recommendations: (i) governance; (ii) strategy; (iii) risk management; and (iv) metrics and targets. ESRS requirements are organised across the same themes, but with slight variations to account for the CSRD's double materiality approach.

However, there are also several differences across the rules and standards relating to materiality, assurance and industry-specific requirements.

Materiality

The SEC rule requires companies to make materiality determinations in the same way as they would when preparing the management discussion and analysis (MD&A) section in a registration statement or annual report. This means companies must disclose information that is reasonably likely to cause reported financial information not to be necessarily indicative of future operating results or of future financial condition [page 104].

The ISSB standards, in turn, focus on sustainability risks and opportunities that could reasonably be expected to affect cash flows, access to finance or cost of capital in the short, medium or long-term [IFRS S1, paragraph 3]. Note this definition can be interpreted as extending beyond a focus on sustainability risks and opportunities in some cases per IFRS S1 Appendix B paragraphs B16 and B23. Information is material if omitting, misstating or obscuring it could reasonably be expected to influence the decisions of primary users of general purpose financial reports [IFRS S1, page 18].

Finally, the ESRS follow the CSRD's "double materiality" approach, whereby a sustainability matter can be material from the perspective of its impact materiality and/or its financial materiality, as defined within ESRS 1 [paragraphs 38-51].

Note that under all rules and standards, companies must report on all material climate risks and opportunities to which they are exposed – including those arising from within the value chain.

Assurance

Assurance is not required under the ISSB standards. The SEC rule requires limited, and then reasonable, assurance of Scope 1 and 2 emissions. Under the CSRD, limited and then reasonable assurance of sustainability reporting more broadly will be required.

Industry-specific requirements

The SEC rule does not contain industry-specific requirements, while under the CSRD industry-specific requirements will be specified in future ESRS.

The ISSB standards, in turn, require companies to disclose material industry-specific metrics, but do not prescribe which ones to use – except Scope 3 Category 15 GHG emissions (financed emissions) for the financial sector. Instead, they require companies to consider the SASB Standards in determining this, and permit companies to consider other sources [IFRS S1, paragraphs 48 and 58].

COMPARISON OF DISCLOSURE REQUIREMENTS

This paper also compares the disclosure requirements of each rule or standard, structured across IFRS S2's four pillars. It includes detailed findings across each disclosure theme, and summary tables with rating icons to indicate where disclosure requirements either:

- contain gaps relative to IFRS S2;[1]
- are in line with IFRS S2 and contain no gaps; or
- contain additions to IFRS S2 and contain no gaps.

Overall, while each rule and standard has considerably leveraged the TCFD recommendations across each pillar, our assessment indicates differences (to a varying extent) across their disclosure areas. The SEC rule contains additions to the ISSB standards in reporting on management responsibilities, climate risks and risk management, metrics and targets. However, it contains gaps against the ISSB standards in most areas, including those in which additions are present, risking fragmentation in reporting. The ESRS, on the other hand, also introduce additional requirements across most disclosure areas, but contain the vast majority of disclosure requirements within the ISSB standards.

A summary table comparing requirements across all disclosure areas is included below.

Figure 1: Comparative overview of all requirements

[1] In disclosure areas where a particular rule or standards contains both gaps against IFRS S2 and additional requirements, it is still awarded this rating due to the gaps.

Disclosure theme (IFRS S2)		SEC rule	ESRS
Governance	Governance body responsibilities		
	Management responsibilities		
	Climate-related remuneration		
Strategy	Climate risks and opportunities		
	Transition plans		
	Financial effects		
	Resilience analysis		
Risk management	Climate risk and opportunity identification, assessment and prioritisation		
	Climate risk and opportunity management		
Metrics and targets	GHG emissions		
	Financial exposure to climate risks and opportunities		
	Internal carbon pricing		
	Climate-related targets		
	Carbon credits		

COMPARISON OF STRUCTURAL FEATURES

To contextualise variations in disclosure requirements, the paper begins by outlining similarities and differences in key structural features of each rule and standard analysed:

- Climate-specific rules and standards:
  - The Enhancement and Standardization of Climate-Related Disclosures for Investors (SEC rule) – climate disclosure requirements adopted by the US SEC for companies.
  - IFRS S2 - Climate-related Disclosures (IFRS S2) – ISSB standard with climate reporting requirements.
  - ESRS E1 - Climate change (ESRS E1) – European Sustainability Reporting Standard (ESRS) specifying climate disclosure requirements under the EU Corporate Sustainability Reporting Directive (CSRD).
- Cross-issue standards, which apply to climate reporting:
  - IFRS S1 - General Requirements for Disclosure of Sustainability-related Financial Information (IFRS S1) – ISSB standard with requirements for reporting on all sustainability issues.
  - ESRS 1 - General requirements (ESRS 1) – ESRS specifying mandatory concepts and principles to apply in reporting under the CSRD.
  - ESRS 2 - General disclosures (ESRS 2) – ESRS specifying requirements for reporting on all sustainability issues under the CSRD.

As shown above, the SEC rule only contains climate-specific reporting requirements. The ISSB standards, in turn, contain requirements applicable to: (i) climate change; and (ii) reporting on all sustainability issues. Finally, the ESRS contain requirements applicable to reporting on all sustainability issues, climate-specific requirements, and requirements specific to nine other sustainability issues[2]. This paper only covers reporting requirements if they apply to climate.

REPORTING USERS

Investors and other providers of capital are the primary users of reporting under the SEC rule and ISSB standards. Under the ESRS investors are one of many potential users, including but not limited to business partners, trade unions and civil society.

PRESENTATION

Disclosure requirements in the SEC rule and ISSB standards are structured across the four pillars of the TCFD recommendations: (i) governance; (ii) strategy; (iii) risk management; and (iv) metrics and

2 The CSRD also introduces ESRS on pollution, water & marine resources, biodiversity & ecosystems, resource use & circular economy, own workforce, workers in the value chain, affected communities, consumers & end-users, and business conduct.

targets. ESRS disclosure requirements are organised across the same themes, but with an "impact, risk and opportunity management" category given the materiality approach of the standards.

MATERIALITY

The SEC rule requires companies to make materiality determinations in the same way as they would when preparing the management discussion and analysis (MD&A) section in a registration statement or annual report. The MD&A requires companies to disclose material events and uncertainties known to management, that are reasonably likely to cause reported financial information not to be necessarily indicative of future operating results or of future financial condition [page 104].

The ISSB standards, in turn, focus on sustainability risks and opportunities that could reasonably be expected to affect cash flows, access to finance or cost of capital in the short, medium or long-term [IFRS S1, paragraph 3]. Information is material if omitting, misstating or obscuring it could reasonably be expected to influence the decisions of primary users of general purpose financial reports [IFRS S1, page 18]. As set out in PRI's summary of the ISSB standards, this definition can be interpreted as extending beyond a focus on sustainability risks and opportunities in some cases, per IFRS S1 Appendix B paragraphs B16 and B23.

Finally, the ESRS follow the CSRD's "double materiality" approach, whereby a sustainability matter can be material from the perspective of its impact materiality and/or its financial materiality, as defined within ESRS 1 [paragraphs 38-51].

Under all rules and standards, companies must report on all material climate risks and opportunities to which they are exposed – including those arising from within the value chain.

ASSURANCE

Assurance is not required under the ISSB standards. The SEC rule requires limited, and then reasonable, assurance of Scope 1 and 2 emissions. Under the CSRD, limited and then reasonable assurance of sustainability reporting more broadly will be required.

INDUSTRY-SPECIFIC REQUIREMENTS

Each rule or standard adopts a different approach (or lack thereof) to industry-specific requirements:

- The SEC rule does not contain industry-specific requirements.
- The ISSB standards require companies to disclose material industry-specific metrics, but do not prescribe which metrics to use – except for Scope 3 Category 15 GHG emissions (financed emissions) for companies in the asset management, commercial banking or insurance sectors. Instead they require companies to consider the SASB Standards in determining this, and permit companies to consider other sources such as the CDSB Framework, the materials of other standard-setting bodies, and metrics disclosed by companies in the same industries or geographies [IFRS S1, paragraphs 48 and 58].

- Under the CSRD, industry-specific requirements will be specified in future ESRS. Draft versions are being developed by the European Financial Reporting Advisory Group (EFRAG).

Given this variation in scope and approach across the rules and standards, sector-specific reporting is not included in our comparison of disclosure requirements.

COMPARISON OF DISCLOSURE REQUIREMENTS

The remaining sections compare the disclosure requirements of each rule or standard, structured across IFRS S2's four pillars. Rating icons indicate where disclosure requirements either:

- contain gaps relative to IFRS S2;[3] 
- are in line with IFRS S2 and contain no gaps; or 
- contain additions to IFRS S2 and contain no gaps. 

Each summary table is organised by disclosure theme, with detailed findings in the narrative text.

GOVERNANCE

Figure 2: Comparative overview of governance-related requirements

Disclosure theme (IFRS S2)	SEC rule	ESRS
Governance body responsibilities		
Management responsibilities		
Climate-related remuneration		

Governance body responsibilities

Under IFRS S2 [paragraph 6] companies should disclose:

i. The governance body(s) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of climate risks and opportunities.

ii. How responsibilities for climate risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to the body(s) or individual(s).

[3] In disclosure areas where a particular rule or standards contains both gaps against IFRS S2 and additional requirements, it is still awarded this rating due to the gaps.

iii. How the body(s) or individual(s) determine whether appropriate skills and competencies are available or will be developed to oversee strategies to respond to climate risks and opportunities.

iv. How and how often the body(s) or individual(s) are informed about climate risks and opportunities.

v. How the body(s) or individual(s) take into account climate risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities.

vi. How the body(s) or individual(s) oversee the setting of targets related to climate risks and opportunities, and monitors progress towards those targets.

The SEC rule captures all disclosures under IFRS S2 except for items (ii), (iii) and (v) [pages 851-852].

ESRS 2 captures all disclosures under IFRS S2, and in a more prescriptive manner. It also contains the following additional disclosures::

- Information on the composition and diversity of governance bodies [paragraph 21].
- The sustainability-related expertise that governance bodies possess or have access to, and how this relates to the company's material impacts, risks and opportunities [paragraphs 21-23].
- A list of the material impacts, risks and opportunities addressed by the governance bodies or their relevant committees during the reporting period [paragraph 26].
- Further information on reporting to the governance bodies [paragraph 26].
- Risk management and internal controls over sustainability reporting [paragraphs 34-36].

Management responsibilities

All rules and standards require companies to describe the role and processes of management in assessing and managing climate issues – as well as allocation of responsibilities, reporting lines and oversight. In addition, the SEC rule requires information on the expertise of management [page 852], while ESRS 2 requires information on the expertise of administrative, management and supervisory bodies [paragraph 22].

Climate-related remuneration

Under IFRS S2 companies should disclose whether and how climate performance metrics (including those related to targets) are factored into executive remuneration, and the percentage of executive management remuneration recognised in the current period that is linked to climate considerations [paragraph 29].

The SEC rule does not contain remuneration-related requirements.

ESRS 2 captures all disclosures under IFRS 2 and requires companies to describe the key characteristics of the incentive schemes, whether performance is assessed against specific sustainability-related targets and/or impacts (and if so, which ones), and the level at which the terms of incentive schemes are approved and updated [paragraph 29].

ESRS E1 also requires reporting on the specific climate considerations linked to remuneration in the current period [paragraph 13].

STRATEGY

Figure 3: Comparative overview of strategy-related requirements

Disclosure theme (IFRS S2)	SEC rule	ESRS
Climate risks and opportunities		
Transition plans		
Financial effects		
Resilience analysis		

Climate risks and opportunities

Under IFRS S2 [paragraphs 10-13] companies should:

i. Describe climate risks and opportunities that could reasonably be expected to affect their prospects, and explain whether these risks are physical or transition risks.

ii. Specify the time horizons – short, medium or long-term – over which the effects of each climate risk and opportunity could reasonably be expected to occur.

iii. Explain how ‘short term’, ‘medium term’ and ‘long term’ are defined and how these definitions are linked to the planning horizons used for strategic decision-making.

iv. Describe the current and anticipated effects of climate risks and opportunities on the business model and value chain, and where in the business model and value chain climate risks and opportunities are concentrated.

The SEC rule captures broadly the same information, but only covering climate risks as opposed to both risks and opportunities under IFRS S2. Another difference is that companies are required to describe whether risks are reasonably likely to manifest in the short-term (i.e., the next 12 months) or in the long-term (i.e., beyond the next 12 months). Finally, the SEC rule requires a description of the nature of climate risks, with varying requirements for physical and transition risks [pages 852-853].

ESRS 2 captures the same information as IFRS S2, plus information on: (i) material impacts (beyond risks and opportunities); and (ii) changes to material risks, opportunities and impacts compared to the previous reporting period [paragraph 48].

Transition plans

Under IFRS S2 [paragraph 14 unless otherwise specified] companies should disclose:

i. Current and anticipated changes to the business model (including resource allocation) to address climate risks and opportunities.
ii. Current and anticipated direct (and indirect) mitigation and adaptation efforts.
iii. Transition plans including key assumptions, dependencies on which the plan relies, and how the company plans to achieve any climate targets.
iv. Amount of capital expenditure, financing, or investment deployed toward climate risks and opportunities [paragraph 42].
v. How the company is resourcing (and plans to resource) its response to (and plans to respond to) climate risks and opportunities in its strategy and decision-making.
vi. Quantitative and qualitative information about the progress of plans disclosed in previous reporting periods.

The corresponding requirements under the SEC rule are worded differently but are likely to capture similar information to the above IFRS S2 requirements. For example, the rule requires reporting on how climate risks have been integrated into the business model [page 854], as opposed to "current and anticipated changes to the business model" under IFRS S2.

Likewise, ESRS E1 contains some wording differences to IFRS S2 but is likely to capture similar information. A slight difference is that reporting is required on assumptions underlying GHG emissions reduction targets, as opposed to assumptions underlying the entire transition plan [paragraph 16].

In addition, ESRS E1 requires information on [paragraphs 16-17 unless otherwise indicated]:

- Locked in GHG emissions.
- Plans for aligning economic activities with the EU Taxonomy.
- The extent to which the ability to implement actions depends on the availability and allocation of resources [paragraph 29].
  - The standard also requires a reconciliation of financial resources underpinning the transition plan to line items in the financial statement, key performance indicators and the capital expenditure plan [paragraph 29].
- Capital expenditure on coal, oil and gas-related activities.
- Whether the company is excluded from EU Paris-aligned Benchmarks.
- Whether the transition plan is approved by the company's management or governance bodies, and alignment with the strategy and business model.

- Policies to address climate change mitigation and adaptation, energy efficiency and renewable energy development [paragraphs 24-25].
- When the company will adopt a transition plan, if it does not currently have one.

Financial effects

Under IFRS S2 [paragraph 16] companies should disclose:

i. How climate risks and opportunities have affected the company's financial position, financial performance and cash flows for the reporting period.

ii. Anticipated effects in the short, medium and long-term, given the strategy to manage climate risks and opportunities.

iii. The climate risks and opportunities for which there is a significant risk of a material adjustment within the next annual reporting period to the carrying amounts of assets and liabilities reported in the related financial statements.

The SEC rule partly captures this information through requirements to discuss material impacts to the business, results of operations, or financial condition as a direct result of: (i) climate risks [page 854]; and (ii) targets or goals, or actions to make progress toward meeting the targets or goals [page 857]. However, IFRS S2 contains a forward-looking component that is missing within the SEC rule.

ESRS 2 contains the same requirements as IFRS S2 [paragraph 48]. One difference is that while IFRS S2 allows for reporting on financial effects as a single amount or a range [paragraph 17], ESRS E1 only permits disclosure of anticipated financial effects as a range in specific circumstances [paragraphs AR70-74].

Resilience analysis methodology and results

Under IFRS S2 companies should describe the climate resilience of their strategy and business model, including [paragraph 22]:

i. Information on the climate scenarios used – including on the inputs, assumptions and significant areas of uncertainty considered – and when the analysis was carried out.

ii. Implications of the assessment for its strategy and business model, including how the company would need to respond to effects identified in the scenario analysis.

iii. Information on the company's capacity to adjust or adapt its strategy and business model to climate change over the short, medium and long term.

The SEC rule requires a similar description of scenarios used – including parameters, assumptions, analytical choices and expected material (including financial) impacts under each scenario. However, the requirements are much less prescriptive than IFRS S2. Further, they would only need to be implemented where scenario analysis is used and, based on the results of this analysis, the company determines that a climate risk is reasonably likely to have a material impact on its business, results of operations or financial condition [page 855].

The ESRS, on the other hand, are likely to capture the same information as IFRS S2 – in that they contain the same or broadly similar requirements relating to inputs, assumptions and results. Additional requirements relate to how scenario analysis is used to identify climate risks and opportunities and inform target-setting, and the compatibility of scenarios used with critical climate-related assumptions made in the financial statements [ESRS E1, AR13-15].

Finally, a key difference between the rules and standards is that only IFRS S2 prescribes the use of climate-related scenario analysis to assess climate resilience.

RISK MANAGEMENT

Figure 4: Comparative overview of risk management-related requirements

Disclosure theme (TCFD)	SEC rule	ESRS
Climate risk and opportunity identification, assessment and prioritisation		
Climate risk management		

Climate risk and opportunity identification, assessment and prioritisation

Under IFRS S2 companies should describe their processes to identify, assess, prioritise and monitor climate risks, including:

i. The inputs and parameters used.
ii. Whether and how scenario analysis is used to inform the identification of climate risks.
iii. How the nature, likelihood and magnitude of the effects of climate risks is assessed.
iv. Whether and how the company prioritises climate risks relative to other types of risk.
v. How the company monitors climate risks.

In addition, companies should describe processes used to identify, assess, prioritise and monitor climate-related opportunities, including information about whether and how climate scenario analysis is used to inform its identification of climate-related opportunities [paragraph 25].

The SEC rule also captures information on processes for identifying, assessing and managing material climate risks, although the requirements are less prescriptive [page 856]. Further, unlike IFRS S2 the rule does not require the same reporting on climate opportunities.

While the rule also contains a requirement on how a company decides whether to mitigate, accept or adapt to a particular risk – an addition to IFRS S2 – the score attributed in this area reflects the abovementioned gaps against IFRS S2 per our methodology.

ESRS 2 contains similar requirements to IFRS S2, and in addition requires reporting on:

- How impacts and dependencies are identified, assessed, prioritised and monitored.
- The decision-making process, related internal control procedures and future revision dates of the materiality assessment [paragraph 53].
- Role and involvement of affected stakeholders in the materiality assessment [paragraph 43].

Further, ESRS E1 contains more prescriptive requirements on how physical and transition risks were assessed, including how scenarios and financial effects were considered [paragraphs 20-21].

Climate risk and opportunity management

All rules and standards require reporting on processes to manage climate risks, and whether and how climate risk management processes are integrated within the overall risk management framework. IFRS S2 and ESRS 2 also capture similar information on the management of climate opportunities.

METRICS AND TARGETS

Figure 5: Comparative overview of metrics and targets-related requirements

Disclosure theme (TCFD)	SEC rule	ESRS
GHG emissions		
Financial exposure to climate risks and opportunities		
Internal carbon pricing		
Climate-related targets		
Carbon credits		

Greenhouse gas emissions

Under IFRS S2 companies should disclose [paragraph 29]:

i. Scope 1, 2 and 3 GHG emissions, measured in accordance with the GHG protocol methodology unless this conflicts with jurisdictional requirements.

ii. The measurement approach, inputs and assumptions used to measure GHG emissions; why these were chosen; and any changes during the reporting period and the reason for these.

iii. Scope 1 & 2 GHG emissions for (i) the consolidated accounting group; and (ii) other investees excluded from (i) such as associates, joint ventures and unconsolidated subsidiaries.

iv. Location-based Scope 2 GHG emissions, and information about any contractual instruments necessary to inform users' understanding of Scope 2 GHG emissions.

v. Emissions categories included in the measure of Scope 3 GHG emissions.

Like IFRS S2, the SEC rule requires companies to report Scope 1 and 2 GHG emissions subject to materiality – no calculation methodology is prescribed. In addition to IFRS S2, companies must also disclose any individually material constituent gas, disaggregated from the other gases [page 858].

Further, the SEC rule requires information on the approach, inputs and assumptions used to measure GHG emissions, including additional information on:

- The organizational boundaries used when calculating GHG emissions, including information on the method used to determine those boundaries.
- The operational boundaries used, including the approach to categorisation of emissions and emissions sources.

However, unlike IFRS S2, the SEC rule does not require disclosure of Scope 3 GHG emissions, information on measurement methodology rationale and changes, or items (iii), (iv) or (v) above. Therefore, despite additions to IFRS S2, the score attributed reflects these gaps per our methodology.

ESRS E1 captures broadly the same information as IFRS S2, with slightly different emissions measurement requirements and more prescriptive requirements on calculating and reporting metrics.

It also captures further information included below [paragraphs 35-53], with further application requirements in each area:

- GHG emissions intensity.
- Percentage of Scope 1 GHG emissions from regulated emission trading schemes.
- Gross market-based Scope 2 GHG emissions.
- GHG emissions in metric tonnes of CO_2eq from each significant Scope 3 category (i.e., each Scope 3 category that is a priority for the company).
- Total GHG emissions, with Scope 2 emissions measured using the location-based and market-based methods.
- Additional information on emissions calculation methodologies used.
- Any significant changes in the definition of what constitutes the company and its value chain, and their effect on the year-to-year comparability of reported GHG emissions.
- A reconciliation of the relevant line item or notes in the financial statements to the net revenue amount included in the GHG emissions intensity figure.
- Disclosures on energy consumption and mix.

Financial exposure to climate-related risks and opportunities

Under IFRS S2 companies should disclose their exposure to physical and transition risks in terms of the amount and percentage of assets or business activities vulnerable to these; and the amount and percentage of assets or business activities aligned with climate opportunities [paragraph 29].

Under the SEC rule, financial exposure is captured through different metrics, listed below:

- The capitalized costs, expenditures expensed, charges and losses [page 715]:
  - Related to carbon offsets and renewable energy credits or certificates (RECs), if used as a material component of a company's plans to achieve its climate targets or goals.
  - As a result of severe weather events and other natural conditions, such as hurricanes, tornadoes, flooding, drought, wildfires, extreme temperatures, and sea level rise, subject to applicable one percent and de minimis disclosure thresholds [set out on page 467].
- How each specified financial statement effect was derived, including a description of significant inputs and assumptions used, significant judgments made, other information that is important to understand the financial statement effect and how it was calculated [page 843].
- A separate statement of the aggregate amount of any recoveries recognised during the fiscal year as a result of severe weather events and other natural conditions for which capitalised costs, expenditures expensed, charges, or losses are disclosed – and where the recoveries are presented in the income statement and the balance sheet [page 845].
- Where applicable, how estimates and assumptions used to produce the financial statements were materially impacted by risks and uncertainties associated with severe weather events and other natural conditions, or any disclosed climate targets or transition plans [page 844].

Despite these additions to IFRS S2, the score attributed in this area reflects resulting gaps against the recommendations per our methodology.

ESRS E1 also captures similar information to IFRS S2 on financial exposure to risks and opportunities. The key difference is that companies must instead report the monetary amount and proportion of assets at material transition and physical risk over the short, medium and long-term before considering climate mitigation and adaptation actions – and the proportion of assets at material transition and physical risk addressed by these actions [paragraphs 66-67].

In addition, ESRS E1 requires the following disclosures [paragraphs 66-68 and AR69-72]:

- On transition risk: (i) estimated amounts and percentage of stranded assets; (ii) a breakdown of the carrying value of real estate assets by energy-efficiency classes; and (iii) liabilities that may have to be recognised in financial statements over the short, medium and long-term.
- On physical risk: (i) disaggregation between acute and chronic physical risk; and (ii) the location of significant assets at material physical risk.
- For both transition and physical risk:

- The monetary amount and proportion of net revenue from business activities at material physical and transition risk over the short, medium and long-term, and a reconciliation to the financial statements.
- Similar to the SEC rule, how the company assessed these financial effects and reconciliations to the relevant line items or notes in the financial statements.

Finally, ESRS E1 approaches financial exposure to climate opportunities differently to IFRS S2, in a way that could lead to different information being disclosed – companies must report on their "potential to benefit from material climate-related opportunities" given potential cost and revenue implications [paragraphs 64-69].

Internal carbon pricing

> Under IFRS S2 companies should explain whether and how they are applying a carbon price in decision-making, and disclose the price for each metric tonne of GHG emissions they use to assess the costs of GHG emissions [paragraph 29].

The SEC rule also requires reporting on carbon prices used, provided that use of an internal carbon price is material to how a company evaluates and manages climate risk [page 855].

The rule also contains the following disclosures in addition to IFRS S2 [page 855]:

- The total price and how it is estimated to change in the future.
- If more than one internal carbon price is used to evaluate and manage a material climate risk, the disclosures required by this section for each internal carbon price and the reasons for using different prices.
- If the scope of entities and operations involved in the use of an internal carbon price described is materially different from the organisational boundaries used for the purpose of calculating GHG emissions, a brief description of this difference.

However, unlike IFRS S2 the rule does not require reporting on how carbon prices are used in decision-making. Therefore, despite its additions to IFRS S2, the score attributed in this area reflects this gap per our methodology.

Finally, ESRS E1 captures the same information as IFRS S2 plus disclosure requirements on the type and scope of internal carbon pricing schemes applied, how the prices are determined, GHG emission volumes covered by these schemes and whether and how the carbon prices are consistent with those used in financial statements [paragraphs 63 and AR65].

Targets

> Under IFRS S2 companies should disclose the following information on targets [paragraphs 33-35]:
>
> i. The objective of the target (e.g. mitigation or adaptation) and the metric used to set it.
> ii. The part of the company to which the target applies.
> iii. The period over which the target applies and the base period from which progress is measured.

iv. Any milestones and interim targets.

v. If the target is quantitative, whether it is an absolute target or an intensity target.

vi. How the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target.

vii. Whether the target and methodology for setting the target has been validated by a third party.

viii. Processes for reviewing the target and metrics used to monitor progress towards reaching it.

ix. Any revisions to the target and an explanation for those revisions.

x. Performance against each target and an analysis of trends or changes in performance.

Companies should also disclose the following information on emissions targets [paragraph 36]:

xi. Which greenhouse gases and scopes are covered by the target.

xii. Whether the target is a gross GHG emissions target or net GHG emissions target – if a net target is disclosed the company is required to separately disclose its associated gross target.

xiii. Whether the target was derived using a sectoral decarbonisation approach.

The SEC rule captures these disclosures [pages 856-857] – except for items (iv) and (v) above, information on trends or changes in performance against targets, and the all information specifically on GHG emissions targets (items xi-xiii). In addition, it requires reporting on whether the time horizon by which a target to be achieved – as opposed to the target itself under item vi – is based on one or more goals established by a climate-related treaty, law, regulation, policy or organisation [page 857].

The SEC rule also contains additional disclosures, including how targets or transition plans relate to the business model or strategy [page 854], and whether estimates and assumptions used to produce the consolidated financial statements were impacted by risks and uncertainties associated with – or known impacts from – climate targets [pages 503-504]. Despite these additions to IFRS S2, the score attributed reflects the abovementioned gaps per our methodology.

Under the ESRS companies are required to disclose the same (or very similar) information to IFRS S2. In addition, ESRS 2 captures the following information on all climate targets [paragraphs 80-81]:

- The baseline value from which progress is measured.
- Information on the involvement of stakeholders in target-setting.
- Whether the targets are based on conclusive scientific evidence.
- The methodologies and significant assumptions used to define targets, including where applicable the selected scenario, data sources and other considerations.
- Changes in targets and corresponding metrics or underlying measurement methodologies, significant assumptions, limitations, sources and processes to collect data – including the rationale for those changes and their effect on comparability.
- Where applicable, how the company tracks the effectiveness of its policies and actions in relation to material climate risks, opportunities and impacts in the absence of targets.

Finally, ESRS E1 captures the following additional information specifically on GHG emissions targets [paragraphs 34 and AR24-25, unless otherwise indicated]:

- Share of the target related to each respective GHG emissions scope.
- GHG emissions reduction target value for 2030.
- Explanation of whether greenhouse gas emissions reduction targets are science-based and compatible with limiting global warming to 1.5°C, and which frameworks and underlying scenarios were used to determine the target.
- Information on the calculation of GHG emissions included in the target, and share of the target related to each GHG emissions scope.
- Information on GHG removals and storage from projects developed in own operations, or contributed to in the upstream and downstream value chain [paragraph 56].
- Consistency between GHG reduction targets and GHG inventory boundaries.
- How the company has ensured the baseline value is representative in terms of the activities covered and influences of external factors (e.g. temperature anomalies in a certain year influencing energy consumption).
- If the baseline value is changed, how the new value affects the new target, its achievement and presentation of progress over time.
- Information on decarbonisation levers (e.g. fuel switching, use of renewable energy) and key actions planned to achieve targets, such as: (i) how climate scenarios informed these; and (ii) quantitative contributions of levers to achieving the targets, broken down by emissions scopes [paragraphs 16, 34 and AR30].
- How future developments have been considered, and how these will potentially impact both GHG emissions and emissions reductions.
- Whether GHG emissions reduction targets have been externally assured.

Carbon credits

Under IFRS S2 companies should disclose the following information [paragraph 36]:

i. Planned use of carbon credits to offset GHG emissions to achieve any net GHG emissions target, and the extent to which (and how) achieving it relies on the use of carbon credits.
ii. Which third-party scheme(s) will verify or certify the carbon credits.
iii. Type of carbon credit including whether the underlying offset: (i) will be nature-based or based on technological carbon removals; and (ii) is achieved through carbon reduction or removal.
iv. Any other factors necessary for users of general purpose financial reports to understand the credibility and integrity of the carbon credits the company plans to use (e.g. assumptions regarding the permanence of the carbon offset).

The SEC rule requires information on carbon offsets or renewable energy credits (RECs), where these have been used as a material component of a plan to achieve climate targets or goals. This includes the nature and source of offsets or RECs, as well as the reduction or removal generated by offsets or the amount of generated renewable energy represented by RECs [page 845] – information that corresponds with items (i) and (iii) above.

It also requires additional disclosures, including [page 845]:

- A description and location of the underlying projects, any registries or other authentication of the offsets or RECs, and the cost of the offsets or RECs.
- The aggregate amount of: (i) carbon offsets and RECs expensed; (ii) capitalised carbon offsets and RECs recognized; and (iii) losses incurred on the capitalised carbon offsets and RECs, during the fiscal year.
- The beginning and ending balances of the capitalised carbon offsets and RECs for the fiscal year.
- Accounting policy for carbon offsets and RECs, and where expenditures expensed, capitalized costs, and losses are presented in the income statement and the balance sheet.

However, unlike IFRS S2 the SEC rule does not contain information on verification or certification of carbon credits. The score attributed reflects this gap, per our methodology.

ESRS E1 approaches this topic differently to IFRS S2 – with several gaps in that it only requires disclosure of [paragraphs 58-61 and AR56-57]:

- Information on GHG removals and storage resulting from projects the company may have developed in its own operations or contributed to in its value chain.
- Amount of GHG emission reductions or removals from climate mitigation projects outside the value chain, that the company has financed or intends to finance through carbon credits.

Finally, under ESRS E1 alone companies are unable to include GHG removals, carbon credits or avoided emissions as a means of achieving their GHG emission reduction targets [paragraph 34].

APPENDIX – COMPARISON WITH TCFD RECOMMENDATIONS

STRUCTURAL FEATURES

The TCFD recommendations have several structural similarities to the rules and standards analysed:

- Investors and other providers of capital are the primary users of reporting, as under the SEC rule and ISSB standards. Under the ESRS reporting users include investors and other stakeholders.
- Requirements are structured across four pillars (governance, strategy, risk management and metrics and targets), as under all rules and standards analysed.
- Companies' materiality determination for climate issues is consistent with the determination for other information including in annual financial filings – a similar approach to the SEC rule, and one that is built upon within the ISSB standards and ESRS.

The key differences are set out below:

- Unlike the SEC rule and ESRS, the TCFD recommendations do not require assurance.
- The TCFD recommendations contain financial sector-specific disclosures, while the SEC rule does not contain industry-specific requirements. ISSB standards require sector metrics but do not prescribe which ones to report – except financed emissions for some financial sector companies.

CORE CONTENT

All rules and standards are well-aligned with the TCFD recommendations but contain some gaps and additions. A high-level summary can be found below.

Disclosure area	Rule or standard	Information additional to the TCFD recommendations	Gaps against TCFD recommendations
Governance	SEC rule	Relevant expertise of management.	Information on remuneration, and how climate matters are considered beyond goals and targets.
	IFRS S2	Skills and competency assessment.	Not applicable.
	ESRS	Composition and diversity, expertise and responsibilities, matters addressed and the nature of climate-related remuneration.	
Strategy	SEC rule	Additional information on the nature of climate risks and their effects on the company, and progress against transition plans.	Not applicable.

	IFRS S2	Similar additions to the SEC rule, plus further information on scenarios used and their results.	
	ESRS	Similar additions to IFRS S2, plus more information on the content, financing and implications of transition plans.	
Risk management	SEC rule	Not applicable.	Not applicable.
	IFRS S2	Not applicable.	Processes to identify, assess, prioritise and monitor climate opportunities. More information on processes to assess climate risks.
	ESRS		
Metrics	SEC rule	More information emissions calculation, financial effects of climate risks and opportunities and internal carbon pricing.	Scope 3 emissions Exposure to climate risks and opportunities captured via different metrics.
	IFRS S2	Additional emissions-related metrics, and more information on the calculation of emissions and how carbon pricing informs decisions.	Emissions intensity.
	ESRS	All ISSB additions plus disclosures on energy consumption; more information on financial effects of climate risks and opportunities; and information on scope/nature of carbon pricing.	Exposure to climate opportunities captured via different metrics.
Targets	SEC rule	Further information on the scope and nature of targets.	Interim targets and calculation methods.
	IFRS S2	Broadly captures all SEC rule additions, plus disclosures specific to emissions targets, and further information on the scope and nature of targets and how they are set and reviewed.	Not applicable.
	ESRS	All ISSB additions plus more information on processes and methodologies used to set and track targets, and how targets will be achieved.	

The Principles for Responsible Investment (PRI)

The PRI works with its international network of signatories to put the six Principles for Responsible Investment into practice. Its goals are to understand the investment implications of environmental, social and governance (ESG) issues and to support signatories in integrating these issues into investment and ownership decisions. The PRI acts in the long-term interests of its signatories, of the financial markets and economies in which they operate and ultimately of the environment and society as a whole.

The six Principles for Responsible Investment are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice. The Principles were developed by investors, for investors. In implementing them, signatories contribute to developing a more sustainable global financial system.

More information: www.unpri.org

PRI Principles for Responsible Investment

The PRI is an investor initiative in partnership with UNEP Finance Initiative and the UN Global Compact.

United Nations Environment Programme Finance Initiative (UNEP FI)

UNEP FI is a unique partnership between the United Nations Environment Programme (UNEP) and the global financial sector. UNEP FI works closely with over 200 financial institutions that are signatories to the UNEP FI Statement on Sustainable Development, and a range of partner organisations, to develop and promote linkages between sustainability and financial performance. Through peer-to-peer networks, research and training, UNEP FI carries out its mission to identify, promote, and realise the adoption of best environmental and sustainability practice at all levels of financial institution operations.

More information: www.unepfi.org

UN environment programme | finance initiative

United Nations Global Compact

The United Nations Global Compact is a call to companies everywhere to align their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption, and to take action in support of UN goals and issues embodied in the Sustainable Development Goals. The UN Global Compact is a leadership platform for the development, implementation and disclosure of responsible corporate practices. Launched in 2000, it is the largest corporate sustainability initiative in the world, with more than 8,800 companies and 4,000 non-business signatories based in over 160 countries, and more than 80 Local Networks.

More information: www.unglobalcompact.org

United Nations Global Compact