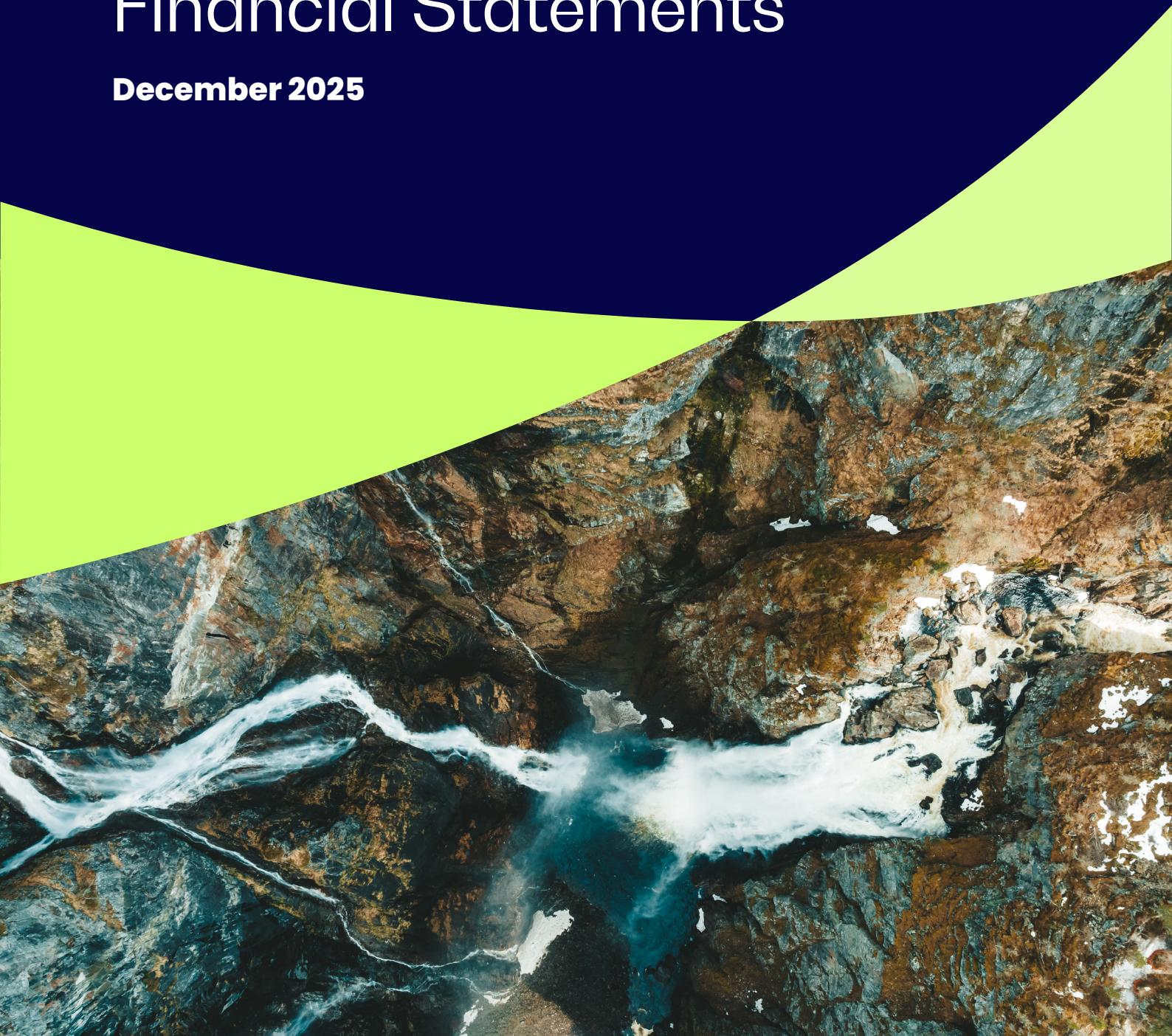




# Investor Expectations: Integrating Climate-related Risks and Uncertainties in Financial Statements

**December 2025**



# Acknowledgments

This report is an update of the first Investor Expectations developed with Sarasin & Partners LLP five years ago. It has been prepared by Eda Enginar and Lucia Graham-Wood from IIGCC together with Natasha Landell-Mills from Sarasin & Partners LLP, and with significant contributions from the other accounts working group co-chairs Justin Bazalgette from EOS at Federated Hermes Limited and Claire Berthier from Trusteam, as well as Gerrit Dubois from DPAM.

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# 1 Executive summary

Accurate financial reporting is fundamental to informed capital allocation and long-term value creation; and yet climate-related risks and opportunities are often underrepresented in financial statements. Where financial statements do not reflect the material economic consequences of climate change, whether related to structural decarbonisation or the physical consequences of more severe or unusual weather patterns, capital allocation decisions will not fully account for the associated risks and opportunities. This omission increases the likelihood of mispricing and the inefficient deployment of capital, harming long-term value creation for individual companies and across the wider economy.

In November 2020, IIGCC published its first investor expectations for Paris-aligned accounts to highlight the risks of ignoring the impacts of climate-related factors on financial reporting and how their integration can contribute to sustainable, climate-resilient, economic growth. Developed with Sarasin & Partners LLP, the report outlined expectations for companies and auditors to integrate the financial consequences of climate change in critical forward-looking accounting assumptions, estimates and judgements.

This report builds on the foundational principles of the investor expectations published in 2020, recognising that the landscape has since evolved. It reaffirms the original expectations while refining and expanding them in light of recent guidance from standard-setters, regulatory developments and emerging investor practice. The updated expectations place greater emphasis on consistency of financial reporting with transition plans, physical risks, audit scrutiny, and the evolving regulatory framework.

Developed with IIGCC members as part of the Accounting and Audit thematic working group, this update highlights the following:

- Accounting and audit standards already require that material climate and transition-related factors are considered in financial statements and audit. Standard-setting authorities have issued clarifications and practical guidance on how to apply these standards effectively.<sup>1</sup> Since 2020, new disclosure frameworks such as the EU's mandatory Corporate Sustainability Reporting Directive (CSRD)<sup>2</sup> and the ISSB's IFRS S1 and IFRS S2<sup>3</sup> have further strengthened expectations for connectivity between climate-related disclosures and the financial statements.<sup>4</sup>
- Regulators and supervisory authorities have been reinforcing these requirements for climate-related financial disclosures and underlining the need for companies to ensure consistency (or 'connectivity') between the front half of the annual report (strategy, risks, targets, scenario analysis) and the back half (the audited financial statements including the notes).
- While companies and auditors are beginning to incorporate and reflect climate and transition risks in their financial statements and audits, there is a need for more detailed information on how this was considered and for quantitative disclosures. Illustrative examples of emerging practice are provided in the Annexes.
- Investors continue to expect consistent integration of material climate risks into accounting practices across all sectors and geographies that are experiencing material transition and/or physical-related consequences.

**By refreshing the original expectations for the integration of climate risks and opportunities in financial statements, this report reaffirms the need for urgent action by companies, including their audit committees, and auditors.** The report supports investors benchmarking disclosures, developing engagement questions for companies and auditors, and identifying when further scrutiny may be appropriate. It also provides support for investors engaging with regulators and standard setters on climate-related accounting.

# Investor Expectations

Through these expectations, investors call on companies, their audit committees and auditors to ensure their financial statements are capturing the real and material structural shifts already underway. Investors also encourage regulators, supervisors and standard setters to reinforce these expectations through review, enforcement and practical guidance.

Taken together, these steps support accurate price discovery, efficient capital allocation and long-term economic value for shareholders and the wider economy.

The key components of each expectation area are outlined below. Readers are encouraged to refer to Sections [4.1](#), [5.1](#) and [6.1](#) for the full detail and context of these expectations.

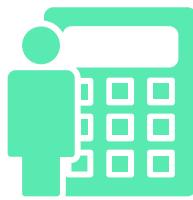
## Investor expectations for:

### Companies



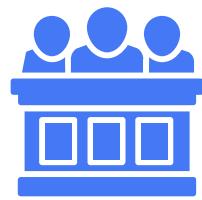
- ✓ Affirmation of climate consideration
- ✓ Connectivity to narrative reporting
- ✓ Disclosure of critical assumptions and estimates
- ✓ Sensitivity analysis
- ✓ Dividend resilience

### Auditors



- ✓ Consideration of material climate risks
- ✓ Connectivity
- ✓ Climate factors in Key Audit Matters (KAMs) / Critical Audit Matters (CAMs)<sup>5</sup>
- ✓ Sensitivity analysis
- ✓ Dividend resilience

### Audit Committees



- ✓ Oversight of management
- ✓ Oversight of auditors
- ✓ Dividend resilience
- ✓ Viability statement



## 2 Introduction

Over the last five years, global investors have been engaging with companies and auditors to ensure their financial statements and audit reports are properly considering material climate-related factors.<sup>6</sup>

The reason for this is simple: whether considering decarbonisation or the physical impacts of a warming planet, the economic consequences<sup>7</sup> are already being felt and, in many cases, reshaping industries and markets.

As with any structural change, these economic realities need to be factored into forward-looking accounting assumptions and estimates that underpin companies' financial statements. Reliable accounts are not just vital for investor protection; they are the foundation on which efficient capital allocation and effective stewardship are built, which in turn drives efficient markets and climate-resilient economic growth.

If tightening carbon emission rules or advances in clean technology, for instance, are expected to make internal combustion engines unviable<sup>8</sup> or coal-fired power redundant,<sup>9</sup> accounts need to reflect this to ensure capital moves accordingly. If climate predictions tell us that particular coastal areas will become uninhabitable,<sup>10</sup> banks need to factor this into their expected credit loss assumptions for mortgage lending. Auditors also have a critical role in challenging management's judgements, estimates and assumptions as part of ensuring that material climate-related risks are appropriately considered.

Five years on from publishing the original "Investor Expectations for Paris-aligned Accounting", financial statements do not yet consistently incorporate consideration of climate-related risks.<sup>11, 12, 13</sup> While progress has been made in certain sectors, most notably among European oil and gas companies where sustained investor engagement has driven more transparent climate-related disclosures (see Shell case study in [section 7.1](#)), the overall pace of change remains slow.

The persistent gap in how financial statements reflect material climate-related matters contrasts with increasing guidance from accounting standard-setters and supervisory authorities. Both climate change and the transition to net zero are increasing risks to companies' business models, assets and financial performance and need to be treated like any other structural change.<sup>14</sup> With regulators around the world adopting disclosure requirements linked to the International Sustainability Standards Board (ISSB) sustainability reporting standards,<sup>15</sup> the lack of corresponding financial statement disclosures will become increasingly evident. Where companies detail material transition and physical climate risks in their narrative reporting, investors will want to know how they have factored this into their financial reporting, as appropriate. The considerations made in preparing financial statements need to be consistent with other company reporting.

Recent data underlines the increasingly severe financial consequences of climate change. In 2024, global natural catastrophes caused an estimated USD 417 billion in economic losses, with USD 154 billion insured.<sup>16, 17</sup> These escalating costs are contributing to higher insurance premiums and underline the growing risk of asset impairments and credit exposures that are becoming increasingly material to company accounts and financial risk assessments.<sup>18, 19</sup>

We hope this report will serve as a timely reminder that high-profile commitments and targets must be supported by underlying financial information that reflects the risk of accelerating climate change. To be decision useful, the numbers driving capital allocation need to provide an accurate picture of which activities are generating economic value, factoring in climate-related market changes.

# 3 Background: Accounting and Audit in a changing climate

## 3.1 Why climate belongs in financial statements

Financial statements guide the allocation of capital by providing investors with insight into a company's financial position, performance and resilience. Financial statements that omit the effects of relevant and material economic conditions risk providing misleading information that can overstate assets, understate liabilities and misdirect capital. To remain decision-useful, accounts must reflect forward-looking structural changes in markets and economic conditions, including those arising from climate-related factors.<sup>20</sup>

A key source of confusion concerns the interpretation of materiality. Some may adopt a narrow, accounting-based view focused on whether climate-related factors have a measurable effect on current financial results. However, investors are aligned with the International Financial Reporting Standards' (IFRS) broader guidance that "information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that [investors] make on the basis of those financial statements".<sup>21</sup> In practice, investors assess materiality across the full reporting suite, including narrative, sustainability and financial disclosures, as all form part of the information set that informs capital allocation and stewardship decisions. Clarifying this distinction is critical to ensure that climate-related assumptions and judgements are identified and disclosed in a timely manner, before they translate into financial impacts.

Developments in the wider disclosure landscape reinforce the need for climate-related discussions and effects to be reflected in both sustainability reports and financial statements. Companies are also facing increasing disclosure requirements linked to their sustainability risks and impacts, including through IFRS S1 and IFRS S2. Both standards emphasise the importance of "connectivity" between financial statements and sustainability disclosures. Companies are required by the new standards "to explain how sustainability-related risks and opportunities (and climate-related risks and opportunities) are reflected in the financial statements and to use assumptions consistent with the financial statements when applicable".<sup>22</sup>

In Europe, all large and listed companies must comply with the Corporate Sustainability Reporting Directive (CSRD), which similarly requires companies to follow European Sustainability Reporting Standards (ESRS). The first ESRS (E1) requires detailed disclosure of "potential financial effects from material physical and transition risks",<sup>23</sup> including the monetary amount and proportion of assets at risk. These disclosures should also be accompanied by reconciliations to the relevant line items or notes in the financial statements.<sup>24</sup>

Other regional frameworks contain similar requirements. For instance, the UK's Transition Plan Taskforce's disclosure framework<sup>25</sup> also includes a requirement to disclose how key assumptions in a climate transition plan are reflected in an entity's financial statements, and the UK recently consulted on voluntary implementation of ISSB under its Sustainability Reporting Framework.<sup>26,27</sup>

While regulations are continuing to evolve, including recent developments such as the U.S. federal bank regulators' rescission of their 2023 climate-risk management principles, the financial materiality of both physical and transition climate risk is increasing. As such, it remains relevant under longstanding accounting principles that require preparers to consider of material economic conditions in financial reporting, irrespective of whether dedicated climate-risk management rules are currently in place.<sup>28</sup>

**Figure 1: Key stakeholders in climate-integrated financial reporting**

Stakeholder Group	Examples	Primary Role
<b>Standard Setters</b>	IASB • IAASB • ISSB • EFRAG • FASB	Define accounting, audit, and sustainability disclosure requirements that ensure material climate-related financial effects are appropriately recognised and disclosed.
<b>Regulators / Supervisors</b>	ESMA • FRC • SEC • ASIC • CSA • EBA • PRA	Enforce accounting and audit standards, issue guidance and expectations, and review climate-related disclosures to ensure compliance and consistency across jurisdictions.
<b>Company Management</b>	CFO • Finance Team	Prepare financial statements, assess material climate-related risks and opportunities, and disclose key accounting assumptions, estimates, and sensitivities.
<b>Audit Committee</b>	Board Audit Committee	Oversee management's accounting judgements, ensure auditor challenge on material climate-related matters, and approve financial statements and audit scope.
<b>External Auditor</b>	Audit firms • Lead audit partners	Assess and report whether climate-related assumptions are appropriately reflected in the accounts, review sensitivities and report findings through Key/Critical Audit Matters.
<b>Investors</b>	Asset owners • Asset managers	Engage companies, auditors, and regulators to ensure climate-related risks and opportunities are reflected in financial statements; use disclosures to inform investment and voting decisions.
<b>Proxy Advisors &amp; Rating Agencies</b>	ISS • Glass Lewis • Moody's • S&P	Incorporate climate-related financial risks into voting guidance, credit ratings, and broader market assessments to promote alignment with climate-informed financial practices.

## 3.2 Accounting and audit standard setter guidance

Amongst accounting standard setters, the International Accounting Standards Board (IASB) has led in providing guidance on climate considerations. The IASB is responsible for setting International Financial Reporting Standards (IFRS) used across over 169 jurisdictions globally.<sup>29</sup> In 2020, it published its first educational material on how climate is likely to be relevant under a number of existing IFRS. This was updated in July 2023.<sup>30</sup>

In 2024, the IASB launched a project to determine what more was needed to ensure material climate risk is taken into consideration within accounting processes.<sup>31</sup> In November 2025, the IASB finalised a package of Illustrative Examples accompanying the standards, which clarify how entities should disclose the effects of climate-related uncertainties in their financial statements (see below).<sup>32</sup>

### IASB Disclosures about Uncertainties in the Financial Statements Illustrated using Climate-related Examples

In November 2025 the IASB issued six final Illustrative Examples under its project Disclosures about Uncertainties in the Financial Statements. These examples are now incorporated into the guidance accompanying IFRS 18, IFRS 7, IAS 8, IAS 36 and IAS 37. They illustrate how material climate-related and other uncertainties should be reflected in financial statement disclosures under existing Standards. They build on the IFRS Foundation's 2023 educational material by providing climate-anchored fact patterns to illustrate more concretely the kinds of disclosures that would be expected, thereby reducing boilerplate language and improving comparability for investors.

The six final examples cover:

- 1. Materiality judgements (IFRS 18):** when additional disclosure is required to enable users to understand the effects of climate-related and other uncertainties even when there is no recognition or measurement impact.
- 2. Assumptions - specific (IAS 36):** disclosure of key assumptions such as carbon prices, regulatory developments and other transition-risk drivers used in impairment testing.
- 3. Assumptions - general (IAS 1 / IAS 8):** major sources of estimation uncertainty and assumptions that could lead to material adjustments within the next year.
- 4. Credit risk (IFRS 7):** disclosure of how climate-related and other risks influence expected credit loss estimates and exposures.
- 5. Decommissioning / restoration (IAS 37):** disclosure of material information on long-dated decommissioning obligations, including where balance-sheet effects appear immaterial.
- 6. Disaggregation (IFRS 18):** separating climate-sensitive or high-uncertainty assets (e.g., PP&E with differing transition risk profiles) where this provides material information.

These examples are not new requirements, rather they demonstrate how to apply existing requirements. As such, they are effective immediately, although companies are expected to consider the need for changes to disclosure based on the new insights provided by the examples, 'on a timely basis'.

The ISSB has also made clear the need to disclose information about anticipated financial effects of climate-related risks and opportunities and cross-reference to the financial statements to support connectivity.<sup>33</sup>

The US is the largest financial market that does not require IFRS. In 2021 the Federal Accounting Standards Board (FASB), a non-governmental entity, published a statement indicating the need to cover material climate factors like any material risk in company accounts prepared in accordance with US Generally Accepted Accounting Principles (GAAP).<sup>34</sup>

Just as accounting standard setters have issued guidance on the topic, in 2020 the international auditing standard setter (the International Auditing and Assurance Standards Board (IAASB)) published a staff alert setting out how climate can materially impact audits.<sup>35</sup> Under International Audit Standards, and legal requirements in Europe and the US, auditors are required to disclose key / critical audit matters (K/CAMs).<sup>36</sup> These are those accounting judgements which, in the auditor's professional opinion, were of most significance to the audit in the given period, generally where management subjectivity is elevated, and different assumptions or estimates could lead to materially different financial reporting.

Further details on international and national level implementation and enforcement are provided in the section below.

### **3.3 How regulators enforce accounting and audit requirements**

Notwithstanding developments in the US, regulators have increasingly stressed the need to consider the financial impacts of material shifts in markets linked to climate-related drivers under existing requirements. Across jurisdictions, regulators are not signalling new accounting rules for climate; they are underlining existing estimation and disclosure requirements.

Examples of recently published statements, guidance and enforcement action are included in the table below:



Jurisdiction / regulatory body	What they emphasise for the financial statements	Key documents / dates
<b>European Securities and Markets Authority (ESMA)</b>	Climate impacts on financial statements as enforcement priority for four consecutive years; connectivity between financial and sustainability disclosures, particularly consistency between ESRS E1 (Climate Change) reporting and financial statements; material climate effects in recognition, measurement and disclosure under existing IFRS.	<ul style="list-style-type: none"> <li>Climate enforcement priority statement (October 2024)<sup>37</sup></li> <li>Emphasis on connectivity (October 2025)<sup>38</sup></li> <li>Thematic report with illustrative examples (2023)<sup>39</sup></li> <li>Enforcement decisions: Airport operator (climate-risk assumptions in impairment testing); shipping issuer (climate-related estimation uncertainty)<sup>40</sup></li> </ul>
<b>UK Financial Reporting Council (FRC)</b>	Company-specific, decision-useful financial-statement disclosures and consistency with narrative reporting; supervisory challenge letters. Material information about climate change effects incorporated in financial statements; disclosures on climate-related assumptions and impairment testing.	<ul style="list-style-type: none"> <li>CRR Thematic review: Called for company-specific, decision-useful information (not 'boilerplate') (July 2023)<sup>41</sup></li> <li>Annual Review of Corporate Reporting 2024/25- monitoring statement (September 2025)<sup>42</sup></li> <li>Thematic Review on Climate-related Financial Disclosures by AIM and Large Private Companies (January 2025)<sup>43</sup></li> <li>Updated factsheet on climate-related matters in financial statements (March 2025)<sup>44</sup></li> <li>Case correspondence: CRH and BP (supervisory action on climate assumptions and impairment testing)<sup>45</sup></li> <li>UK Sustainability Disclosure Technical Advisory Committee (SDTAC) established<sup>46</sup></li> </ul>
<b>US Securities and Exchange Commission (SEC)</b>	Climate impacts already addressed under existing rules, notably Item 303 of Reg S-K – MD&A (disclose critical accounting estimates) and related notes; staff focus on consistency and sensitivities where relevant.	<ul style="list-style-type: none"> <li>Interpretive Guidance (February 2010)<sup>47</sup></li> <li>Regulation S-K, Item 303 (MD&amp;A requirements) and paragraph b(3) on critical accounting estimates<sup>48</sup></li> <li>Proposed enhanced climate rule reversed under new administration (existing guidance remains) (March 2025)<sup>49</sup></li> </ul>
<b>Australia - ASIC</b>	Climate disclosures required by AASB S2 (aligned to ISSB S2); statement of no material financial risks or opportunities relating to climate where applicable (forms part of audited financial report); connectivity with financial statements through cross-referencing	<ul style="list-style-type: none"> <li>Regulatory Guide 280 on sustainability-related financial disclosures (Mar 2025)<sup>50</sup></li> <li>Guidance on forward-looking climate information, scenario analysis, and Scope 3<sup>51</sup></li> </ul>
<b>Japan - SSBJ / FSA / JPX</b>	ISSB baseline sustainability disclosures; TCFD-aligned climate disclosures on comply-or-explain basis; consistency with financial report	<ul style="list-style-type: none"> <li>SSBJ standards release (March 2025)<sup>52</sup></li> </ul>
<b>Singapore - ACRA &amp; SGX RegCo</b>	IFRS S1/S2 alignment; connectivity with financial reporting; IBB-aligned climate disclosures; TCFD-referenced climate reporting (comply-or-explain)	<ul style="list-style-type: none"> <li>Climate Reporting &amp; Assurance Roadmap (August 2025)<sup>53</sup></li> <li>TCFD-referenced reporting since FY2022 (phased mandates FY2023/FY2024)<sup>54</sup></li> </ul>
<b>Canada - Canadian Securities Administrators (CSA)</b>	Disclosure of material climate-related risks under existing securities laws, including where they affect the financial statements, and consistency with MD&A.	<ul style="list-style-type: none"> <li>CSA Staff Notice reminders and reviews (e.g., 51-358)<sup>55</sup></li> </ul>

## 3.4 Examples of how climate is relevant to company accounting

While the specifics may vary between jurisdictions, in what follows we draw on standard setter guidance to provide examples of climate-related matters that investors would expect to be considered when companies prepare their financial statements.

- **Company decarbonisation targets and transition strategy** – where these call for new investment in less carbon-intensive assets, changes in a business model or practices, with consequent changes in costs/liabilities, this could impact critical forward-looking accounting assumptions and estimates, e.g. forecasted margins used in asset impairment tests<sup>56</sup> or the timing to settle relevant liabilities (i.e. decommissioning).<sup>57</sup>
- **Regulatory and legal risks** – e.g., where a company faces new climate-related regulation such as a ban on the existing carbon-intensive production process or punitive carbon taxes, leading to increasing costs of production or the decarbonisation of facilities earlier than expected. This new economic outlook needs to be captured in critical assumptions, such as those used in testing for impairments of assets and the impacts on any existing or contingent liabilities.<sup>58, 59</sup>
- **Technological risks and opportunities** – e.g. low-carbon disruptive technologies / replacement products which destroy demand for incumbents will need to be factored into impairment testing. For instance, for oil and gas companies it is important to consider whether elevated oil and gas prices can be sustained and/or the timing of useful lives<sup>60</sup> for the existing asset base.
- **Market risk** – Climate-related risks can impact the valuation of company-specific asset, e.g. trading assets held on the balance sheet. If the market expects that prices for key products will decline due to decarbonisation and demand shifts to low-carbon alternatives fair value assessments may be affected. Failure to account for these expectations can lead to inflated asset values or under-reported liabilities.<sup>61</sup>
- **Physical risks to company assets and supply chains** – such as the exposure of key productive assets to more frequent extreme weather events – that could impact future operation of such assets. This may affect a company's ability to secure/costs of insurance coverage or to continue operating in that location and could lead to impairment testing under reasonable triggers,<sup>62</sup> where forecasted cash flows are reduced, or even render the assets unviable for future use.

The following aspects of companies' accounting disclosures may need to take account of the above climate consequences where material:

- **Judgments and quantitative assumptions/estimates:** Companies are typically required to disclose information about the assumptions they make regarding the future and other major sources of estimation uncertainty when deemed material.<sup>63</sup> For example, an energy company should explain the key forward-looking inputs used in impairment testing and depreciation of generation assets (e.g. the carbon price trajectory, forecasted demand, planned retirement dates and abatement capex) and why those inputs are reasonable given transition (and physical risk exposures). This enables investors to assess the basis for recognition and measurement, understand the sensitivity of carrying values, and check consistency with the company's transition plans.
- **Sensitivity analyses:** Sensitivity disclosures are often required where forward-looking assumptions are subject to uncertainty and plausible alternative assumptions would have a material impact on the reported financial position or performance.<sup>64</sup> Where the climate factors above could lead to different critical assumptions or estimates – and this would have a material bearing on reported numbers – then relevant sensitivities should be disclosed. For example, quantified impairment sensitivities for upstream assets could show how changes in oil and gas prices, production volumes and emissions-cost assumptions would affect carrying amounts, and how a ±1 percentage-point change in the discount rate would alter the period's net impairment. These should also be consistent with broader scenario analysis used in company transition planning.

- **Disaggregate information on climate risk:** Different types of property, plant and equipment (PP&E) may have distinct risk characteristics when looked at through the lens of transition or physical climate risk. Investors therefore have a legitimate interest in a breakdown by asset type. For example, it is important for investors to see an automaker disclose PP&E separately for internal combustion engine (ICE) powertrain and electric vehicle (EV) platform assets. This enables them to show differing risk characteristics, with cross-references to the related impairment testing and useful-life assumptions and sensitivities, as these categories carry very different transition and thus financial risks.

The accounting areas highlighted are not exhaustive and readers should refer to guidance from standard setters and regulators for further illustrations.

The following sections set out explicit investor expectations for companies, auditors and audit committees. Illustrative examples of decision-useful disclosure are provided in the Annex to support application of these expectations in practice.



# 4 Investor Expectations for Companies

Normally finance teams in companies, overseen by Chief Financial Officers (CFOs), are responsible for drawing up the financial statements. Once finalised, these are reviewed by an independent external auditor and, ultimately, signed off by the Board (typically led by the audit committee or equivalent). The expectations cover each of these three key actors, starting with company management.

## 4.1 Expectations for company management

As already highlighted, wherever climate-related consequences are material, these should be included in financial statement disclosures to meet reporting requirements. Investors expect that senior management should ensure the following five disclosures are provided in the notes to the financial statements (or where local regulation mandates accounting disclosures in the annual filing document):

- **Affirmation that the financial consequences of decarbonisation and physical impacts from climate have been considered in drawing up the accounts.** Companies should, for instance, assess the financial consequences of expected transition-related regulations; technological change; achieving climate targets /commitments; resilience strategies/ adaptation plans; and legal / reputational risks.<sup>65</sup> If management concludes that climate change is not material to critical forward-looking assumptions, estimates or judgements, they should explain why and provide sufficient detail of the key accounting elements reviewed, as this in itself is material information.
- **Connectivity to narrative reporting:** It is vital to ensure consistency between narrative reporting on climate risks (including the entity's TCFD/ISSB report) and the accounting assumptions. Any significant divergence should be explained.
- **Critical assumptions and estimates:** Companies should disclose how climate change and decarbonisation have informed relevant critical accounting judgements, including quantitative disclosures wherever possible. For instance, where an accelerating transition to cleaner energy is expected to reduce demand for a company's products, the impacts for assumptions used in impairment testing should be disclosed and explained.
- **Sensitivity analysis:** Given the high level of uncertainty associated with climate change and decarbonisation, investors expect companies to disclose which climate-related scenarios, assumptions or sensitivity analyses have been used in preparing critical accounting assumptions and estimates, and how these affect the financial statements. Where alternative plausible assumptions or scenarios could lead to materially different outcomes, companies should describe or, where feasible, quantify such sensitivities. Investors may refer to faster decarbonisation (preferably 1.5°C) and hotter world (say >3°C) scenarios when assessing resilience, but the primary expectation is that companies clearly identify and justify the scenarios they apply.<sup>66</sup>
- **Dividend resilience:** Investors have an interest in both capital strength and dividend paying capacity of companies.<sup>67</sup> They therefore expect companies to disclose how climate-related assumptions and scenarios used in preparing the financial statements have been considered when assessing dividend capacity, and to explain whether alternative plausible pathways could materially affect this assessment.

### Refinements in updated expectations:

- Emphasis has been added to the first expectation, highlighting the consideration of financial effects of both transition and physical impact-related risks, which must be disclosed if material to investors.
- Expectations around consistency have been renamed “connectivity” to align with standard-setting authorities’ terminology.
- Sensitivity analysis expectations emphasise transparency over prescription, requiring companies to disclose which climate-related scenarios and assumptions have been applied and how these influence key accounting judgements and estimates. Investors also expect disclosure of sensitivities to alternative plausible pathways, where such information is material to understanding resilience.
- Dividend resilience expectations have been clarified to focus on transparency about how climate-related assumptions inform assessments of dividend-paying capacity.

### Basis for investor expectations

Accounting standards require the disclosure of material information and significant judgments and/or assumptions made in preparing financial statements. If climate change is determined to be material, companies should disclose its impact, and if the impact is deemed immaterial, they should justify why.

It is important to note that, while dividend resilience and sensitivity analysis may be mandated under specific financial reporting standards or jurisdictions, the application of 1.5°C and hotter world pathway scenarios, generally represent best practices strongly encouraged by investor groups and climate reporting frameworks.

## 4.2 Where should these disclosures be made?

Material climate-related disclosures should be incorporated in the notes to the financial statements, and in other relevant statutory reporting as required by local law. While the financial statements present financial results for the fiscal year, the notes provide essential context.<sup>68,69</sup>

For examples, see [Annex I](#).

# 5 Investor Expectations for Auditors

While the rules governing audit may vary between jurisdictions, international auditing standards have helped to ensure a high degree of consistency, especially for Public Interest Entities (PIE) – generally larger and/or listed companies.

In general, the external auditor provides an opinion as to whether the financial statements presented by management provide a true and fair view, or fair representation, of the underlying economic health of the business and are free from material misstatement, including omissions. Auditors also assess whether the relevant accounting standards have been properly applied.

They may also have other obligations depending on the jurisdiction, e.g. checking internal control efficacy or compliance with dividend rules. They are also responsible for assessing consistency of the information in the audited financial statements with other information contained in the same document/filing. The auditor's role is thus central to delivering reliable accounts that incorporate material climate considerations.

## 5.1 Expectations for auditors

Investors expect auditors to provide assurance that the company's financial statements provide a true and fair view (fair representation) in line with existing requirements and guidance. This includes material climate and transition related consequences as appropriate, as follows:

- **Consideration of material climate risks:** Confirmation that the auditor has considered climate-related factors in conducting its audit, with a description of which climate impacts are most material to their audit, and the steps taken to derive comfort that these factors have been adequately considered in the financial statements.
- **Connectivity:** Confirmation that there is consistency between the company's narrative disclosures around transition and climate risks and achieving its own targets/strategy (including TCFD/ISSB reporting) and the financial statements.
- **Climate factors included in reported KAMs/CAMs where relevant:** Where climate factors are material to the audit, auditors should set out in a stand-alone K/CAM, or as part of other K/CAM(s), how this was considered, and whether management's assumptions and estimates are appropriate.
- **Sensitivity analysis:** Where management provides sensitivity to changes in critical assumptions or estimates linked to different climate or transition pathways, the auditor should review this analysis and comment on its reliability. Where management has not provided a sensitivity analysis but, given the level of uncertainty around the particular assumption/estimate, the auditor believes this would be appropriate to give investors a fairer view of the outlook and resilience for the business, the auditor should make this clear.
- **Dividend resilience:** In keeping with local laws and regulations where auditors are required to notify investors of non-compliance with dividend or capital maintenance requirements, investors expect auditors to confirm that they have considered material climate-related impacts, where they are relevant, in making this determination.

### **Refinements in updated expectations:**

- Emphasis has been placed on financial materiality rather than Paris-alignment, grounding the expectations in auditors' existing responsibilities.
- Climate-related matters in KAMs/CAMs are now made explicit when material, with identification of affected areas and a brief explanation of how management's assumptions were challenged.
- Terminology is aligned to "connectivity", with a request for clear confirmation of consistency between narrative climate disclosures and the audited financial statements, or an explanation of any divergence.
- The treatment of sensitivities is clarified so that auditors review and comment on the reliability of management's climate-linked sensitivities and flag gaps where sensitivities are reasonably expected but absent.

## **5.2 Where should these disclosures be made?**

Auditors should provide this information in their Audit Report to shareholders.

For examples, see Annex II.

# 6 Investor Expectations for Audit Committees

Audit Committees are typically responsible for leading oversight of reporting and accounting by management, compliance with relevant laws and regulations and the appointment and monitoring of the external auditor.<sup>70</sup>

Audit Committees are generally fully independent, to protect against conflict of interest. As Board directors, they are also normally subject to shareholder appointment via votes at the AGM (see section 7 on holding companies and auditors accountable).

## 6.1 Expectations for Audit Committees

- **Description of steps taken to ensure that management meets investor expectations detailed above.** If management concludes that climate change, transition or an entity's own climate commitments are not material to critical forward-looking assumptions, estimates or judgements, the Audit Committee should detail why they are comfortable with this determination. Audit Committees should furthermore assess appropriate consideration of climate-related matters in the current-year financial statements and ensure that investors can clearly see how sensitive key items in the accounts are to plausible changes in assumptions. Where the Audit Committee took steps to challenge management on these assessments, this should be outlined.
- **Description of steps taken to ensure the auditor meets investor expectations detailed above:** Investors wish to see the Audit Committee instruct the auditor to review the materiality of climate-related factors; confirm that financial statements take the current temperature pathway and transition trends into account; and check appropriate sensitivities have been undertaken and disclosed.
- **Dividend resilience:** Given that the Board ultimately signs off on dividend payments or other distributions, investors would welcome an explicit statement outlining how the Audit Committee has satisfied itself that climate-related factors were considered prior to approval.
- **Viability statement:** Linked to the point above, in certain jurisdictions such as the UK,<sup>71</sup> the Board is required to publish a longer-term viability statement, detailing how they satisfied themselves that the company would remain viable for the foreseeable future and continue as a going concern.<sup>72</sup> For entities that face structural changes in their markets due to climate-related trends, investors would like to understand how these factors were incorporated into the viability assessment.

### Why set separate expectations for audit committees?

Audit committees provide independent, board-level oversight of financial reporting and the external audit. Separate expectations clarify their accountability for ensuring material climate-related matters are addressed in the financial statements and the audit. This strengthens governance over these matters including connectivity and closing gaps between narrative climate disclosures and audited accounts.

These expectations focus on oversight actions unique to audit committees: this includes challenging management's materiality judgements, directing and overseeing the auditor's work, testing dividend resilience, and integrating climate into viability assessments.

## 6.2 Where should these disclosures be made?

Investors expect to see these disclosures integrated into Audit Committee reporting to shareholders, which is normally included within companies' Annual Reports or proxy material, depending on the jurisdictions. It is important to investors that these disclosures are not boilerplate or generic statements of responsibilities but annual reports on work undertaken during the year, providing meaningful reassurance to shareholders around the quality of oversight provided by the Audit Committee.

For examples, see [Annex III](#).



# 7 Holding companies and auditors accountable

Investors play a vital role in holding management, boards and auditors accountable for delivering reliable financial statements and audits. Best practice stewardship would normally involve shareholder engagement with the relevant stakeholders in the first instance and, depending on the success of that engagement, considering using their votes at the AGM or other actions to escalate their concerns.<sup>73</sup>

## 7.1 Investor actions and the current state of practice

Investor concerns that companies were failing to reflect the economic consequences of climate change in their financial statements prompted the publication of "Investor Expectations for Paris-aligned Accounts" in 2020, led by Sarasin & Partners. This launched a programme of company, auditor and policy outreach and engagement aimed at addressing the gap.

Key milestones in this period for investor engagement include:

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**November 2020**

- Sarasin & Partners sends the investor expectations to 36 of Europe's largest companies, along with a letter signed by 38 investors.<sup>74</sup>

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**November 2021**

- The Climate Action 100+ Net Zero Company Benchmark (Benchmark) assesses focus companies' net zero transition; the Climate Accounting and Audit Assessment (CAAA)<sup>75</sup> becomes part of that continuing Benchmark assessment.

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**2021-2022**

- A broader group of investors send letters and hold follow-on engagements with the largest UK audit firms in advance of 2023 Annual Reports.<sup>76</sup>

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**November 2023**

- The International Corporate Governance Network published a paper underlining global investors' ongoing expectations for climate-related disclosures in financial statements.<sup>77</sup>

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**January 2024**

- IIGCC publishes Net Zero Voting Guidance for investors which includes a focus on financial statements and audit.<sup>78</sup>

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**October 2024**

- A letter led by Sarasin & Partners is sent to the US SEC, seeking clearer guidance and enforcement of existing accounting disclosure requirements under Reg SK. The letter focused on energy companies and the potential impairment risks and heightened asset retirement obligations resulting from decarbonisation and lower long-term commodity price assumptions.<sup>79</sup>

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**2020-2025**

- Letters sent to Audit Committee Chairs, copied to lead audit partners. Approximately 100 letters sent to companies on accounts.



## Case study: Shell investor engagement on climate-related financial disclosures

Investor engagement with Shell and its auditors has been a significant driver in enhancing the company's financial statement disclosures audit report transparency regarding climate-related risks.

Year	Key developments and outcomes <sup>80</sup>
<b>2016</b>	Engagement initiated by investors to address the lack of decarbonisation considerations in Shell's accounts. <sup>81</sup>
<b>2017<sup>82</sup></b>	Shell's accounts first disclose the quantitative forward-looking commodity price assumptions used for impairment testing, and the long-term oil price assumption is reduced from \$80/bbl (2016) to \$70/bbl.
<b>2019<sup>83</sup></b>	Further reduction in long-term oil and gas price assumptions leads to \$3.6 bn impairment. EY enhances KAM disclosures, assessing assumptions against Shell's Paris-aligned decarbonisation commitments.
<b>2020<sup>84</sup></b>	IIGCC members (\$9.3 trn AUM) send joint letter to Shell and EY on Paris-aligned accounts. Shell publishes its first impairment-related sensitivity analyses and EY introduces a climate-focused KAM referencing Investor Expectations for Paris-aligned accounts.
<b>2021<sup>85</sup></b>	Shell introduces Note 4 "Climate change and energy transition" with the first climate-scenario sensitivity analysis, indicating \$27–33 bn potential impairments. Investor engagement is acknowledged again.
<b>2022</b>	Expanded Note 4 adds 1.5°C sensitivity analysis and asset-level exposure detail. IIGCC, Sarasin, and Carbon Tracker acknowledged in audit materials.
<b>2023</b>	Shell further expands climate-related disclosures, including physical risk analysis and carbon-price sensitivities based on 1.5–2°C external climate scenarios and the IEA NZE 2050 scenario. Continued recognition of investor engagement.
<b>2024</b>	Shell demonstrates ongoing leadership in transparency, expanding Note 4 including a new dividend-resilience analysis. Adjusted oil price assumptions and climate-focused KAMs reflect closer alignment with investor expectations.

Despite existing requirements, progress in regulation and increasing investor engagement, current accounting practices still show limited evidence that material climate-related risks are being integrated in financial statements. With few exceptions, most notably among oil and gas companies listed in the EU and UK (such as Shell engagement), disclosures generally remain high-level or qualitative, offering investors limited insight into the quantitative assumptions underpinning reported financial positions.

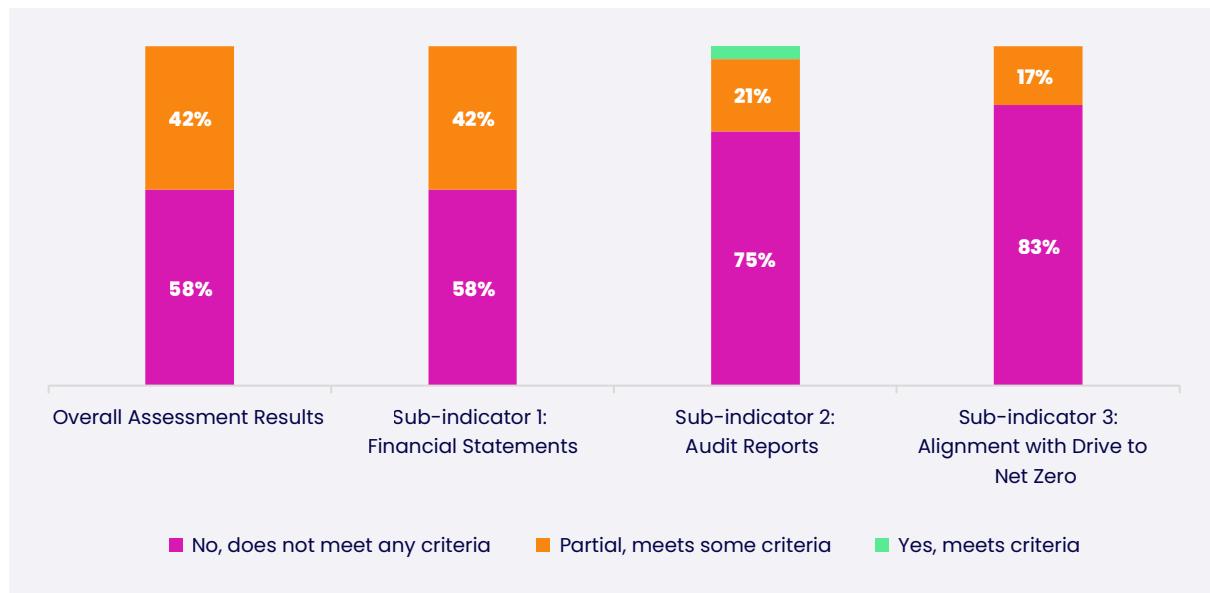
The research organisation Carbon Tracker has been tracking progress in accounting and audit disclosures for some of the largest listed carbon-intensive companies<sup>86</sup> over the past five reporting years. Its analysis found that while targeted investor engagement can lead to stronger transparency in individual cases, overall market progress remains slow.

Carbon Tracker's most recent assessment of 2024 financial statements and audit reports found that 58% of 52 Climate Action 100+ focus companies failed to provide meaningful disclosures about whether, and how, climate risk and the energy transition impact the financial statements or audits.<sup>87</sup> Similarly, assessments of 2023 financial statements found that 63% of 150 companies (and audit reports) failed to provide meaningful information.<sup>88</sup>

A summary of results is presented in the charts below.

### Climate Accounting and Audit Assessment Score

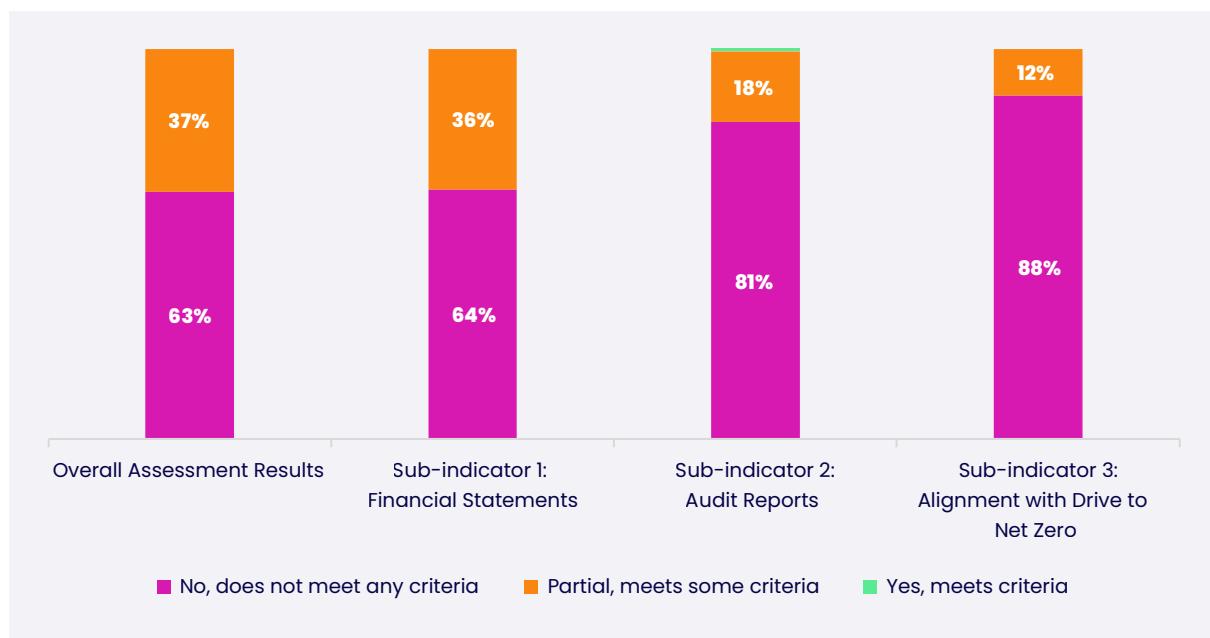
Breakdown FY2024 reporting



Source: Carbon Tracker analyses for 52 CA100+ companies

### Climate Accounting and Audit Assessment Score

Breakdown FY2023 reporting



Source: Carbon Tracker analyses for 150 CA100+ companies



Auditors overall are failing to provide transparency over how they have assessed the financial implications of climate-related risks. 75% of the FY2024 audit reports assessed offered little or no evidence of climate consideration in their audits, despite these carbon-intensive businesses being substantially exposed to transition trends. This has not substantially changed from prior year assessments.<sup>89</sup>

Beyond this disclosure analysis, only a small number of companies have disclosed critical forward-looking assumptions or estimates that explicitly reflect climate-related factors. Examples are concentrated in UK and European listed oil and gas companies that have been engaged by investors.<sup>90</sup> These examples are powerful for demonstrating the ability of companies and their auditors to provide more transparency within existing accounting and audit frameworks. They also point to the potential for targeted engagement to have a meaningful impact.

## 7.1 Investor tools for holding directors and auditors responsible

Investors have several tools to hold directors and auditors accountable for delivering accounts and audits that incorporate material climate-related factors, including:

- **Engagement:** Shareholders and creditors may engage with boards of directors, particularly the audit committee chair, to press for evidence that material climate-related factors have been properly considered in drawing up financial statements and the audit process. Where appropriate, investors may also correspond with the lead audit partner to reinforce expectations around climate-related audit considerations, or engage with relevant market regulators, standard setters and proxy advisors on potential gaps or concerns that arise.
- **Voting:** Shareholders may vote against the reappointments of directors – and specifically audit committee members – and/or the auditor at AGMs where performance is inadequate. A vote against approval of the Annual Report and/or accounts is an alternative voting option in markets where this is on the ballot. In certain jurisdictions, shareholders may also be able to file a shareholder proposal; asking for improved climate-related disclosures.<sup>91</sup>

Investors can also engage with or challenge proxy advisors and rating agencies where their recommendations or analyses fail to reflect the quality or adequacy of company climate-related financial disclosures.<sup>92</sup> When engaging with companies, investors should assess whether audit committees are accessible and include sufficient accounting and sustainability expertise within their skills matrix. Where engagement proves challenging, investors can reference the forthcoming Company Assessment Framework (CAF) being developed by IIGCC's Corporate Governance Working Group, which will provide practical guidance on expected board and committee-level responsibilities for climate-related financial reporting and assurance.

Please also see IIGCC's [Net Zero Stewardship Toolkit](#) and [Net Zero Voting Guidance](#) for further information on engagement and voting strategies.



## 7.2 Engagement guidelines

Ideally, shareholders aim to raise concerns directly with those Board directors who are responsible for oversight of reporting at a company on behalf of shareholders. Prior to reaching out to the Board, however, it is important to establish whether there are legitimate concerns or questions to raise. A first step is to understand the company's approach to climate change in its financial reporting, and whether material factors appear to have been overlooked, including whether the company operates in an industry, sector, or jurisdiction that is significantly carbon intensive. Shareholders can do this by:

- Analysing the company's financial reporting to identify what the critical accounting estimates and assumptions are, and how vulnerable these might be to transition risk or physical impacts;
- Undertaking peer analysis to see if climate has been identified in others' financial reporting as a concern;
- Reviewing third-party research for analysis of potential accounting risks affecting the particular sector or industry;<sup>93</sup>
- Reaching out to Investor Relations and/or the finance team within a company to understand their thinking – including whether they have considered climate-related factors.

Building on the framework set out above by the Investor Expectations, this report also outlines more detailed questions investors can consider to help them prepare for engaging in dialogue with companies on accounting and audit-related issues.

**Not all questions will be applicable to all companies and Investors, as independent fiduciaries must adopt their own commercial decisions, tailoring or adapting any suggested content to their own aims and engagements. The relevance and suitability of the contents will depend on (i) the investor's own jurisdictional and regulatory requirements and obligations and (ii) those applicable to the engaged investee. Nothing herein should be read as encouraging refusals to deal, or dealings only on particular terms, with companies that do not meet any requests set out. The use of any part of this document remains at each investor's sole discretion and subject to their own due diligence.**



## Example engagement questions on climate-related accounting and audit

### Materiality and linkage

- Which climate matters have the company deemed potentially material to the financial statements?
- How was materiality assessed? How were investor requirements / expectations considered?
- Does the company reflect these materiality judgements in its financial statement disclosures?

### Key assumptions

- Has the company disclosed which critical assumptions might be impacted by decarbonisation of physical climate risks (e.g., commodity and carbon prices, policy and regulatory impacts, demand shifts, forecasted costs to address physical risk for existing assets)?
- Does the company explain how climate assumptions affect useful lives, expected credit loss calculations, and measurement of provisions?
- Has the company provided sensitivities or ranges for assets and liabilities that are most exposed to changes in relevant assumptions driven by climate-related factors?

### Impairment tests

- For carbon-exposed cash generating units (CGUs), has the company indicated potential impairment triggers?
- Does the company explain how timing and cash-flow scenarios align with its decarbonisation commitments, e.g. as set out in its transition plan?
- Has the company disclosed the methodology for incorporating climate risks into value-in-use (impairment) calculations?

### Provisions and commitments

- Has the company assessed whether net zero or decommissioning commitments create new provisions/liabilities (and/or accelerate the timing)?
- Does the company disclose climate-related provisions and / or provide disclosure of contingent liabilities?
- Has the company explained changes to existing provisions, including whether due to transition or climate factors?

### Credit risk

- Has the company disclosed where credit exposures are concentrated in climate-vulnerable sectors or regions?
- Does the company explain how climate risks are reflected in risk disclosures?
- Has the company demonstrated integration of climate factors into expected credit loss models?

### Disaggregation

- Has the company disaggregated climate-sensitive assets, liabilities, and revenues?
- Does the company provide sufficient granularity for investors to understand climate-related financial impacts?



If investors identify gaps or inconsistencies suggesting that the accounts should consider climate factors, then they might choose to raise these issues directly with company representatives responsible for oversight of financial reporting and audit, such as the Audit Committee Chair or Board. Engagement should focus on promoting transparency and alignment among those responsible for overseeing the integrity of the financial statements and audit process. With regards to the lead audit partner, ensuring they are aware of investor expectations for the accounts is important to how they assess the materiality of key disclosures – since materiality is determined by whether the information could be expected to influence an investor's decision making. The expectations set out in Section 6.1 in this paper offer a starting point for framing the asks of the Audit Committee.



## 8 Conclusion

Reliable financial statements are essential for effective capital allocation and investor stewardship in a climate-constrained world. By setting clear expectations for companies, auditors and audit committees, this paper supports investors in ensuring that material climate-related risks and opportunities are appropriately reflected in financial statements and audits, and in engaging to promote more consistent, transparent and decision-useful reporting. Strengthening transparency and accountability in financial reporting will help ensure markets are equipped to respond to the structural changes threatened by climate change.



## 9 Annex

## Annex I. Climate-related disclosure examples from companies

The following examples are drawn from FY2024 company reports and illustrate how entities in different sectors have disclosed the potential financial impacts of climate-related factors. They demonstrate how these factors can be integrated in financial statements within existing IFRS requirements.<sup>94</sup> However, where relevant quantified information appears in accompanying sections of the annual report and is clearly connected to financial-statement items, these are also included to illustrate emerging practice.<sup>95</sup>

Disclosures vary in detail and quantification. While companies may affirm that climate factors have been considered, they might not quantify their financial impact, explain the key assumptions involved, or specify which scenarios were assessed in determining that such impacts are material or not material. This reinforces the importance of investors probing how these assumptions and sensitivities have been determined. Where disclosures address only certain areas (for instance, impairment but not decommissioning provisions, or transition risks but not physical impacts) investors may need to investigate further to understand the completeness of management's assessment across all material areas.

## Box 1: Examples of company disclosures that reflect climate-related considerations in financial statements

Company	Sector	Relevant Standard & Theme	FY2024 Company Disclosure
ABN AMRO Bank N.V.	Banking	<b>IFRS 9 Financial Instruments</b> Requires companies to recognise expected credit losses (ECL) on financial assets with amortised cost and on debt assets with fair value via other comprehensive income and certain financial guarantees and loan commitments	<ul style="list-style-type: none"> <li>States that climate risk is incorporated in ECL: "CER (Climate and Environmental Risk) incorporated implicitly in macroeconomic scenarios used for ECL; management overlay for CER as it is not captured by ECL models; economic capital add-on for climate risk under internal stress testing." <a href="#">Integrated Annual Report 2024, p. 67</a></li> <li>Discloses roadmap for integration: "...we have devised a roadmap on how to integrate CER risks into ... PD and LGD risk models and reporting on capital adequacy ... and IFRS 9." <a href="#">Integrated Annual Report 2024, p. 68</a></li> <li>Confirms consideration in ECL: "We considered the impact of .... and climate and environmental risks in expected credit losses." <a href="#">Integrated Annual Report 2024, p. 494</a></li> </ul>
Air Liquide	Industrials	<b>IAS 1 – Presentation of Financial Statements</b> Disclosure of material information that is relevant to an understanding of the financial statements, including significant judgements, assumptions and sources of estimation uncertainty (IAS 1.31 and IAS 1.112(c)).	<ul style="list-style-type: none"> <li>States that climate risks are material: "...the Group considers that climate risks are material, even though their quantified impact on the Consolidated Financial Statements of the Group is not material. The Group takes into account these risks in its closing assumptions and incorporates their potential impact in its Financial Statements. In particular, climate risks are taken into account when carrying out closing procedures, in particular <ul style="list-style-type: none"> <li>the analysis of the useful lives of property, plant and equipment used for calculation of depreciation and amortization,</li> <li>the review of the estimates and assumptions concerning assets' impairment tests, and</li> <li>the risk assessment to determine the amount of provisions for contingencies and losses." <a href="#">Universal Registration Document 2024, p. 199</a></li> </ul> </li> </ul>
		<b>Connectivity between narrative and financial reporting</b> Alignment with IAS 1 and IFRS 81 on consistency of assumptions	<ul style="list-style-type: none"> <li>Discloses consistent carbon pricing across investment decisions: "...for all its projects, for all geographies, even those without a current price for CO<sub>2</sub>, Air Liquide includes a carbon price in its investment decision process. A sensitivity study to this aspect is performed with various values including the current local price and a high value of 100 euros per tonne, or more, chosen according to the geography and context." <a href="#">Universal Registration Document 2024, p. 44</a></li> </ul>
bp	Oil & gas	<b>IAS 36 Impairment of Assets</b> Requires disclosure of key assumptions used in value-in-use tests and sensitivity to climate-driven variables.	<ul style="list-style-type: none"> <li>States that carbon-emission costs are reflected in impairment testing: "...for value-in-use impairment testing on bp's existing cash-generating units (CGUs)... bp is required to reflect management's best estimate of any expected applicable carbon-emission costs payable ... for each jurisdiction in which the group has interests. ... Future potential carbon pricing and/or costs of carbon-emissions allowances are included in the value-in-use calculations to the extent management has sufficient information to make such an estimate. ... A key input ... is the assumption, aligned with bp's aim to reach net-zero GHG emissions by 2050 or sooner, that the current recognized portfolio of oil and gas properties and refining assets will have an immaterial carrying value by 2050. ... The most significant instances where a carbon price has been incorporated in the 2024 value-in-use impairment tests is for the UK North Sea and the Gelsenkirchen refinery. The assumptions for UK North Sea were £59/tCO<sub>2</sub>e in 2025 gradually increasing to £231/tCO<sub>2</sub>e in 2050. The assumption applied for the Gelsenkirchen refinery was approximately \$97/tCO<sub>2</sub>e." <a href="#">bp Annual Report and Form 20-F, p. 146</a></li> </ul>
		<b>IAS 37 – Provisions, Contingent Liabilities and Contingent Assets</b> Requires companies to disclose sufficient information in the notes about any indications of uncertainties relating to the nature, amount, or timing of any outflow of economic benefits	<ul style="list-style-type: none"> <li>Discloses decommissioning provisions with discount and inflation rates: "The group holds provisions for the future decommissioning of oil and natural gas production facilities and pipelines at the end of their economic lives... The nominal interest rate used to determine the balance-sheet obligations at the end of 2024 was 4.5% (2023 4%), based on long-dated US government bonds interpolated to reflect the expected weighted average time to decommissioning. ... Costs at future prices are typically determined by applying an inflation rate of 1.5% (2023 1.5%) to decommissioning costs and 2% (2023 2%) for all other provisions. ... The estimated phasing of undiscounted cash flows in real terms for upstream decommissioning is approximately \$5.5 billion within the next 10 years, \$6.2 billion... in 10 to 20 years and ...\$6.7 billion after 20 years. ... A 1.0 percentage point increase in the nominal discount rate could decrease the group's provision balances by approximately \$1.5 billion. ... A one percentage point increase in the inflation rate applied to upstream decommissioning costs could increase the decommissioning provision by approximately \$1.7 billion..." <a href="#">bp Annual Report and Form 20-F, p. 159</a></li> </ul>

Mercedes-Benz Group	Auto	<b>IAS 16 Useful lives of assets</b> Requires disclosure of measurement basis and carrying amounts by class; depreciation/amortisation methods, rates, useful lives	<ul style="list-style-type: none"> <li>States that useful lives consider transformation to electric vehicles: "The determination and review of the useful lives of the capitalized development costs are based on the expected product life cycle. Changes in the originally envisaged product life cycles can result from the transformation to all-electric vehicles... the useful lives of property, plant and equipment assets are regularly reviewed in the light of the transformation to all-electric vehicles. This did not require any material adjustments of the useful lives up to the reporting date as the production facilities of the Group are basically flexible in use." <a href="#">Annual Report 2024, p.319</a></li> </ul>
Eni S.P.A.	Oil & gas	<b>Connectivity between narrative and financial reporting</b> Alignment with IAS 1 and IFRS SI on consistency of assumptions	<ul style="list-style-type: none"> <li>States that hydrocarbon price forecasts incorporate climate assumptions: "The recoverability test of carrying amounts of oil &amp; gas cash generating units (CGUs) is the most important of the critical accounting estimates in the preparation of Eni's consolidated financial statements. Future expected cash flows associated with the use of oil &amp; gas assets are based on management's judgment and subjective assumptions about highly uncertain matters like future hydrocarbons prices, assets' useful lives, projections of future operating and capital expenditures, the volumes of reserves that will ultimately be recovered and costs of decommissioning oil &amp; gas assets at the end of their useful lives. The hydrocarbon prices are forecasted based on management's expectations about future trends in demand and supply of hydrocarbons in the long term, which incorporate assumptions on several scenario variables, including the rate of macroeconomic growth, evolution in consumers' preferences, changes in governments' regulatory and political framework in response to climate change and preservation of the ecosystem, the pace of the energy transition, the role of technologies, and finally production plans of major oil &amp; gas companies and production policies of the OPEC+ alliance. Eni's forecast prices are constantly benchmarked against the market view of investment banks and energy consultants." <a href="#">Annual Report 2024, pp. 319-320</a></li> </ul>
Mondi Group	Forestry	<b>IFRS 13 Fair Value Measurement</b> Requires using the assumptions that market participants would use when pricing the asset or liability such as market prices, risks premiums	<ul style="list-style-type: none"> <li>States that climate change impacts forestry asset assumptions: "The following assumptions have a significant impact on the valuation of the Group's forestry assets: <ul style="list-style-type: none"> <li>[...]</li> </ul> </li> <li>The conversion factor, which is used to convert hectares of land under afforestation to tonnes of standing timber, is dependent on the species, the maturity profile of the timber, the geographic location and a variety of other environmental factors, such as the anticipated impact of climate change on water scarcity and fire risks. In 2024, the conversion factors ranged from 7.7 to 25.3 (2023: 7.6 to 25.0).</li> <li>The risk premium on immature timber of 12.6% (2023: 12.4%) is based on an assessment of the risks associated with forestry assets in South Africa and is applied for the years the immature timber has left to reach maturity. A risk premium on mature timber of 4.0% (2023: 4.0%) was applied. The risk premium applied to immature and mature timber includes factors for the anticipated impact of climate change on water scarcity and fire risks. An increase in the severity and frequency of extreme weather events, such as higher temperatures, changes in rainfall patterns and drought conditions, may result in higher timber losses in future years caused by stronger winds, erosion, fires, pests and diseases." <a href="#">Annual report 2024, p.171</a></li> </ul>
Standard Chartered	Banking	<b>IFRS 9 Financial Instruments Disclosures</b> Requires companies to recognise expected credit losses (ECL) on financial assets with amortised cost and on debt assets with fair value via other comprehensive income and certain financial guarantees and loan commitments	<ul style="list-style-type: none"> <li>States that climate risk impact on ECL has been assessed: "Additionally, we assess the impact of climate risk on the classification of financial instruments under IFRS 9, when Environmental, Social or Governance (ESG) triggers may affect the cash flows received by the Group under the contractual terms of the instrument. <ul style="list-style-type: none"> <li>The ESG Risk team has performed a quantitative assessment of the impact of climate risk on the IFRS 9 ECL provision. This assessment has been performed across both the CIB and WRB portfolios.</li> <li>The Climate risk impact assessment on IFRS 9 business as usual ECL has been conducted based on newly developed and enhanced internal climate risk models for corporates across six priority sectors (Oil and Gas, Power, Steel, Mining, Shipping, and Automotive), one Generic model for the remaining corporate sectors and Sovereigns, while the top-down approach developed in 2022 was used for the remaining portfolios.</li> </ul> </li> <li>The impact assessment, which primarily focused on transition risk, resulted in only a marginal ECL increase across CIB and WRB, which has been recorded as a management overlay for the 2024 year end." <a href="#">Annual report 2024, p.296</a></li> </ul>

Saint-Gobain	Industrials	<p><b>IAS 1 – Presentation of Financial Statements</b></p> <p>Disclosure of material information that is relevant to an understanding of the financial statements, including significant judgements, assumptions and sources of estimation uncertainty (IAS 1.31 and IAS 1.112(c)).</p>	<ul style="list-style-type: none"> <li>States that climate issues are incorporated in financial statements: "The Group takes these climate issues fully into account, incorporating them into its financial statements and their short-, medium- and long-term projections (economic forecasts, energy mix, discount rate, etc. see Climate Issues note 3 of chapter 8, p. 385)." <a href="#">Universal Registration Document 2024, p. 130</a></li> </ul>
Shell	Oil & Gas	<p><b>IAS 36 Impairment of Assets</b></p> <p>Requires disclosure of key assumptions used in value-in-use tests and sensitivity to climate-driven variables.</p>	<ul style="list-style-type: none"> <li>States that discount rate includes energy transition risk: "The discount rate applied for value in use impairment testing is based on a nominal post-tax weighted average cost of capital (WACC) and is determined at 7.5% except for the power activities in the Renewables and Energy Solutions segment where 6% is applied. The discount rate includes generic systematic risk for energy transition risk. In addition, cash flow projections applied in individual assets include specific asset risks, including risk of transition. An increase in systematic energy transition risk could lead to a higher WACC and consequently to a higher discount rate to be applied in impairment testing. An increase of the discount rate applied for impairment testing of 1% ... would lead to a change in the carrying value of \$1–3 billion (2023: \$2–4 billion) in Integrated Gas and Upstream." <a href="#">Annual Report 2024, p.264</a></li> </ul>
		<p><b>IAS 37 – Provisions, Contingent Liabilities and Contingent Assets</b></p> <p>Requires companies to disclose sufficient information in the notes about any indications of uncertainties relating to the nature, amount, or timing of any outflow of economic benefits</p>	<ul style="list-style-type: none"> <li>States that discount rate for provisions reflects time value of money: "Provisions for decommissioning and restoration costs ... are measured on the basis of current requirements, technology and price levels; the present value is calculated using amounts discounted over the useful economic life of the assets. ... The discount rate applied to reflect the time value of money in the carrying amount of provisions requires estimation. The discount rate used in the calculation of provisions is the pre-tax rate that reflects current market assessments of the time value of money. Generally ... Shell considers it appropriate to use the 20-year US Treasury bond yield return as the risk-free rate. The discount rate applied is reviewed regularly and adjusted following changes in market rates."</li> <li>Notes estimation uncertainty: "The discount rate applied to determine the carrying amount of provisions provides a source of estimation uncertainty as referred to in IAS 1.125. Information about decommissioning and restoration provisions and their sensitivity to changes in estimates is presented in Note 25." <a href="#">Annual Report 2024, p.252</a></li> </ul>
OMV	Oil & Gas	<p><b>IAS 36 Impairment of Assets</b></p> <p>Requires disclosure of key assumptions used in value-in-use tests and sensitivity to climate-driven variables.</p>	<ul style="list-style-type: none"> <li>States that financial statement estimates use IEA scenarios: "OMV's strategy development is informed by an underlying market base case, which is based on the IEA APS scenario and other external and internal market analysis. This base case is used to evaluate strategic options, define our mid-term strategy and planning, and for estimates relating to the measurement of various items in the Group financial statements (including the impairment testing of non-financial assets and the measurement of provisions). For investment decisions, business cases are based on the base case scenario. Additionally, investments undergo a stress test based on a 'net zero emissions by 2050' scenario that is primarily influenced by the IEA NZE scenario." <a href="#">Annual Report 2024, p.167</a></li> </ul>
	<p><b>IAS 37 – Provisions, Contingent Liabilities and Contingent Assets</b></p> <p>Requires companies to disclose sufficient information in the notes about any indications of uncertainties relating to the nature, amount, or timing of any outflow of economic benefits</p>	<ul style="list-style-type: none"> <li>States that discount and inflation rates have material effects: "The most significant decommissioning obligations of the Group are related to the plugging of wells, the abandonment of facilities, and the removal and disposal of offshore installations... Estimates of future restoration costs are based on reports prepared by Group experts or partner companies and on past experience. Any significant downward changes in the expected future costs or postponement in the future affect both the provision and the related asset... Provisions for decommissioning and restoration costs require estimates of discount and inflation rates, which have material effects on the amounts of the provision." <a href="#">Annual Report 2024, p.486</a></li> </ul>	

## Annex II. Climate-related disclosure examples from auditors

While the practices are still emerging, there are good examples of leadership, particularly where investors have engaged more intensively.<sup>96</sup> These examples are based solely on information publicly disclosed in FY2024 audit reports. Other auditors may have undertaken similar procedures without explicit disclosure.

Examples include:

Auditor	Company	Sector	Auditor Disclosure-FY2024
Deloitte	bp	Oil & gas	<ul style="list-style-type: none"><li>Discloses a separate Key Audit Matter on the potential impact of climate change and the energy transition. (pp. 117–118)</li><li>Assesses asset carrying values in the context of governments' 2050 net-zero targets and bp's own net-zero aims. (p. 120)</li><li>Tests remaining useful lives of refining assets and considers the need for refinery decommissioning. (pp. 118–120, 124–125)</li><li>Challenges management's assumptions on refinery lives using external refined-product demand projections (including IEA WEO 2024). (p. 120)</li></ul>
EY	Shell	Oil & gas	<ul style="list-style-type: none"><li>Discloses a separate Key Audit Matter on the potential impact of climate change and the energy transition covering alignment of financial-statement assumptions with the Strategic Report/Sustainability Statements and Note 4. (pp. 226–230)</li><li>Assessed stranded-asset risk for assets/reserves beyond 2050, reporting that only an insignificant amount of proved reserves (about 3%, &lt;1% excluding oil sands held for sale) would be produced beyond 2050 and noting low stranded-asset risk for refineries based on depreciation profiles. (p. 229–230)</li><li>Assessed refinery useful lives and related assumptions within the impairment KAM (including refining margin assumptions), and reviewed asset-retirement/decommissioning accounting in the notes (recognition and measurement of decommissioning/restoration provisions). (pp. 230, 246–247)</li></ul>
PwC	Eni	Oil & gas	<ul style="list-style-type: none"><li>Addresses climate/energy-transition considerations within a broader KAM on the evaluation of hydrocarbon reserves and mineral assets (not a stand-alone climate-titled KAM). (pp. 476–480)</li><li>Tests price/production/CO<sub>2</sub> assumptions and sensitivities (e.g., a -10% price shock, +1 pp WACC, and IEA NZE 2050 price/CO<sub>2</sub> paths) and considers consistency with Eni's 2025–2028 plan and long-term plan to 2050. (pp. 479–480)</li><li>Reviews abandonment/decommissioning (asset-retirement) estimates and provisions as part of the same KAM on mineral assets. (pp. 477–478; Note 21 cross-references)</li><li>Considers connectivity by looking at whether decarbonisation strategic objectives are consistent with key financial-statement assumptions and with the sustainability statement/market disclosures. (p. 480)</li></ul>

## Annex III: Climate-related disclosure examples from audit committees

Company	Sector	Disclosures by the audit committee
bp	Oil & gas	<p><b>“Examples of how key accounting judgements and estimates were considered and addressed, and how relevant accounting policies have been applied:</b></p> <ul style="list-style-type: none"> <li>Climate change and the transition to a lower carbon economy may have significant impacts on the currently reported amounts of the group's assets and liabilities and on similar assets and liabilities that may be recognized in the future.</li> <li>The audit committee reviewed management's best estimate of oil and natural gas price assumptions for value-in-use impairment testing and investment appraisal, and reviewed management's determination that its best estimate of oil and natural gas prices is in line with a range of transition paths consistent with the goals of the Paris climate change agreement.</li> <li>Management's revised best estimate of oil and natural gas prices are in line with a range of transition paths consistent with the goals of the Paris climate change agreement.</li> <li>See Financial Statements – Note 1 for more details on how bp applies carbon pricing in its impairment testing, sensitivity analyses estimating effects of changes in net revenue and changes in the expected timing of decommissioning. <a href="#">“Annual report 2024, p.84</a></li> </ul>
Shell	Oil & gas	<p><b>Significant accounting and reporting considerations</b></p> <p>“The ARC (Audit and Risk Committee Report) assessed the following significant accounting and reporting areas, including those related to Shell's 2024 Consolidated Financial Statements. The ARC was satisfied with how each of the areas below was addressed. As part of this assessment, the ARC received reports, requested and received clarifications from management, and sought assurance and received input from the internal and external auditors.</p> <ul style="list-style-type: none"> <li><b>Climate change and energy transition</b> Risks related to climate change and the energy transition are regularly monitored to ensure impacts are reflected within Shell's financial statements. The external landscape related to non-financial disclosures continues to evolve. In the absence of one global standard for climate-related reporting there are growing demands from various regulatory and voluntary bodies all with their own expectations for disclosures.</li> <li><b>Committee activity and outcome</b> <ul style="list-style-type: none"> <li>The ARC discussed with management key regulatory requirements including (but not limited to) the EU, IASSB, and SEC disclosure requirements and their implications or potential implications for Shell's external disclosures.</li> <li>The ARC reviewed Note 4 to the “Consolidated Financial Statements” summarising the key climate risk impacts on the Consolidated Financial Statements as well as the impairment sensitivity disclosures using price outlooks based on different climate change scenarios, including external scenarios.</li> <li>See Note 4 to the “Consolidated Financial Statements” on pages 255–265.</li> <li>The ARC was briefed on the non-financial reporting external landscape developments and regulatory requirements. In this connection, the ARC considered the potential implications required for Shell's external disclosures going forward. The ARC reviewed regulatory sustainability disclosures including the new CSRD disclosures within the “Sustainability Statements” section, and other non-financial disclosures as part of the Annual Report review. The ARC was also briefed on the EU Taxonomy disclosures included within “Sustainability Statements” section.</li> <li>Updates regarding climate change and energy transition risk factor have been included on pages 137–138.” <a href="#">Annual report 2024, p.181</a></li> </ul> </li> </ul>
National Grid <sup>97</sup>	Utilities	<p><b>Significant issues and judgements relating to the financial statements</b></p> <p>“The significant issues and judgements considered for the year ended 31 March 2025 are set out in the following table. In addition, the Committee and the external auditor discussed the significant issues addressed by the Committee during the year. Further information can be found in the Independent Auditors' Report on pages 153 – 161.</p> <p><b>US environmental remediation provisions</b></p> <p>In September 2024, November 2024 and May 2025, the Committee reviewed the accounting for the £2.065 billion of environmental remediation provisions, including the judgements and estimates relating to the net £146 million of exceptional provision decreases relating to legacy New York manufactured gas plant sites and a discount rate change. The Committee discussed the Group's engagement with the Environmental Protection Agency, the New York State Department of Environmental Conservation, developers, community and other stakeholders in determining future remediation approaches. The Committee reviewed and approved the classification of the cost decreases related to these sites as exceptional in accordance with the Group's exceptional items framework and noted the environmental provision disclosures contained within notes 5, 26 and 35 to the financial statements.” <a href="#">Annual report 2024, p.113</a></p>

## Endnotes

- 1 While the International Accounting Standards Board (IASB) has been at the forefront of efforts to clarify the application of existing standards in the case of material climate-related consequences, other accounting and audit regulators have made similar clarificatory statements over the years. This paper sets out investor views that, where the impacts are expected to be material to entities' future outlook, existing accounting and audit standards must apply.
- 2 Under the EU's Corporate Sustainability Reporting Directive (Directive (EU) 2022/2464), ESRS E1-9 requires disclosure of the anticipated financial effects of material physical and transition climate risks and opportunities, with cross-references to related financial-statement line items. This requirement is retained under the 2025 Omnibus amendments, which allow phased-in application for quantitative estimates.
- 3 IFRS S1 (paragraphs 20–25) requires sustainability-related financial disclosures to be made by the same reporting entity as the financial statements, for the same period, using data and assumptions consistent with those in the financial statements, and providing disclosures on governance, strategy, risk management, and metrics and targets. IFRS S2 (paragraphs 14–16, 22) requires entities to describe how climate-related risks and opportunities affect their financial position, performance and cash flows, and to explain the connections between climate-related assumptions, scenario analysis and amounts recognised in the financial statements. See [IFRS Sustainability Disclosure Standards](#) for details.
- 4 See "3.3 How regulators enforce accounting and audit requirements", for an overview of the implementation landscape.
- 5 Key Audit Matters (KAMs) under International Standards on Auditing and Critical Audit Matters (CAMs) under US standards (PCAOB) refer to matters of most significance in the audit that are communicated in the auditor's report to provide transparency to investors.
- 6 Investors' early engagements preceded and led to the publication of the first "[Investor Expectations for Paris-aligned accounting](#)" report in 2020. In addition to letters sent to listed companies' audit committees, investors have led dialogues with the large audit firms, for instance, IIGCC members sent [letters to UK's largest audit firms on climate risk](#), December 2022
- 7 European Central Bank (ECB), [The Climate and the Economy](#), ECB Working Paper No. 2793, March 2023
- 8 See for ex. from 2035 onwards, the EU fleet-wide CO2 emission target for both cars and vans is 0 g CO2/km, corresponding to a 100% reduction, [EU Regulation](#), 2023
- 9 See for ex. [Unabated fossil fuel-based electricity](#), IEA, Paris, 2023
- 10 See Cooley, S. et al. (2022) '[Oceans and Coastal Ecosystems and Their Services](#)', in Pörtner, H.-O. et al. (eds) Climate Change 2022: Impacts, Adaptation and Vulnerability. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 379–550.
- 11 Climate Action 100+, [Net Zero Company Benchmark Assessments](#), Climate Accounting & Audit Alignment, pp 45–47, October 2024
- 12 Carbon Tracker Initiative (CT), [Flying Blind: In a Holding Pattern](#), February 2024
- 13 FRC, [CRR Thematic review of climate-related metrics and targets](#), July 2023
- 14 IASB, [Educational Material on Climate-Related Matters in Financial Statements](#), p. 1, July 2023
- 15 ISSB, [IFRS Foundation publishes jurisdictional profiles providing transparency and evidencing progress towards adoption of ISSB Standards](#), June 2025
- 16 Gallagher Re, [2024 Natural Catastrophe and Climate Report](#), January 2025
- 17 Gallagher Re, [Q1 2025 Natural Catastrophe and Climate Report](#), April 2025
- 18 NBER, [Disaster Risk and Rising Home Insurance Premiums](#), October 2024
- 19 IAIS, [2024 Global Insurance Market Report](#) p.66, Dec 2024
- 20 ESRB, [Climate-related risks and accounting](#), April 2024
- 21 IFRS, [Effects of Climate-Related Matters on Financial Statements](#), July 2023
- 22 [Connectivity – what is it and what does it deliver? \(March 2023\)](#)
- 23 [ESRS E1 – Climate Change \(particularly Disclosure Requirement E1-9\)](#).
- 24 Under the Omnibus amendments to the ESRS, the requirement for companies to disclose the anticipated financial effects of material physical and transition climate risks (ESRS E1-9) has been retained. This means that, for EU companies within the CSRD scope, reporting on these financial impacts remains mandatory and the expectation that climate-related risks and opportunities are reflected in financial statements is still in place. However, it is concerning that many companies applying the standards for the first time in 2025 have chosen to use the "phase-in" option under ESRS E1-9, thereby postponing disclosure of these anticipated financial effects.

25 "2.4 Financial planning: An entity shall, to the extent the financial effects of its transition plan are separately identifiable, disclose information about the effects of its transition plan<sup>25</sup> on its financial position, financial performance and cash flows<sup>26</sup> over the short-, medium-, and long-term..." [TPT Disclosure Framework](#)

26 FRC, [UK Sustainability Reporting Standards](#), September 2024

27 1.3c "whether and how the key assumptions under 1.3.a. are reflected in the entity's financial statements." [TPT Disclosure Framework](#)

28 Jurisdictional approaches continue to shift. In the United States, recent regulatory developments include the 16 October 2025 decision by the FDIC, Federal Reserve, and OCC to rescind the Principles for Climate-Related Financial Risk Management for Large Financial Institutions, noting that existing safety and soundness standards already require institutions to address all material risks, including emerging risks. The OCC had withdrawn from the Principles earlier in March 2025 (see [FDIC News Release](#)). In the EU, in November 2024 the European Commission announced that it was exploring streamlining corporate sustainability reporting under a proposed Omnibus Directive. (See [European Commission News release](#))

29 IFRS, Who uses IFRS Accounting Standards, [IFRS website](#)

30 IFRS Educational Material – Effects of climate-related matters on financial statements (Republished July 2023)

31 IFRS – Climate-related and Other Uncertainties in the Financial Statements

32 IFRS, IASB proposes illustrative examples to improve reporting of climate-related and other uncertainties in financial statements, July 2024. These examples are finalised as of November 2025.

33 IFRS, Disclosing information about anticipated financial effects applying ISSB Standards, 2025

34 FASB Staff Educational Paper Intersection of Environmental, Social, and Governance Matters with Financial Accounting Standards (March 2021) [Intersection of Environmental, Social and Governance Matters with Financial Accounting Standards](#)

35 IAASB Issues Staff Audit Practice Alert on Climate-Related Risks, October 2020

36 IFAC, [Auditor Reporting Standards Implementation: Key Audit Matters](#), 2017

37 ESMA, [European common enforcement priorities for 2024 corporate reporting](#), October 2024

38 ESMA, [European common enforcement priorities for 2025 corporate reporting](#), October 2025

39 ESMA, [The Heat is On: Disclosures of Climate-Related Matters in the Financial Statements](#), October 2023

40 ESMA, [27th Extract from the EECS's Database of Enforcement](#), pp 17-20, March 2023. For a summary see: [Climate-Related Risks in The Financial Statements: EFRAG Secretariat Briefing](#), September 2023

41 FRC, [CRR Thematic review of climate-related metrics and targets](#), July 2023

42 FRC, [Annual Review of Corporate Reporting](#), September 2025

43 FRC, [Thematic Review: Climate-related Financial Disclosures by AIM and Large Private Companies](#), January 2025

44 Financial Reporting Council (FRC), [FRS 102 Factsheet 8, Climate-related matters](#), March 2025

45 Financial Reporting Council (FRC), [CRR Case Summaries and Entity-specific Press Notices](#), [CRH](#), [BP](#)

46 Financial Reporting Council (FRC), [UK Sustainability Disclosure Technical Advisory Committee](#)

47 SEC, [Commission Guidance Regarding Disclosure Related to Climate Change](#), February 2010. Note that "reasonably likely" bar here sets a lower disclosure threshold than "more likely than not" see [SEC Release No. 33-8056](#), January, 2002.

48 See: Cornell Law School, LII, § 229.303 (Item 303) Management's discussion and analysis of financial condition and results of operations, January 2021

49 SEC, [SEC Votes to End Defense of Climate Disclosure Rules](#), March 2025

50 ASIC, [Regulatory Guide 280](#), March 2025

51 Australian Sustainability Reporting Standard, [AASB S2 Climate-related disclosures](#), September 2024

52 SSBJ, [SSBJ issues Inaugural Sustainability Disclosure Standards to be applied in Japan](#), March 2025

53 ACRA, SGX, [Climate Reporting and Assurance Roadmap for Singapore](#), August 2025

54 SGX, [Sustainability Reporting Guide](#), Jan 2022

55 CSA, [CSA Staff Notice Reporting of Climate Related Risks](#), August 2019

56 IAS 36 Impairment of Assets: Climate-related factors, such as reduced demand for high-emission products, could trigger an asset impairment test, like a manufacturing plant needing testing. IAS 36 also highlights external indicators, such as regulatory changes, that may negatively impact a company and suggest impairment.

57 With the transition process, there is a possibility that decommissioning obligations may be accelerated, potentially increasing the existing provisions on the balance sheet and necessitating the recognition of previously off-balance sheet obligations as provisions/liabilities. Companies may also have commitments the terms of which could become onerous in the face of climate-related matters.

58 Climate-related issues can have a significant impact on the recognition, measurement, and disclosure of liabilities in financial statements under IAS 37. For example, companies may need to comply with regulations requiring them to remediate environmental damage. They may also wind-down the use of certain assets earlier than expected, leading to the recognition of new or additional decommissioning provisions.

59 Recent analysis by the Net Zero Lawyers Alliance (NZLA), for example, examines how forthcoming legal changes (such as carbon-pricing mechanisms, accelerated coal-fired plant closures, and other regulatory interventions) may trigger accounting adjustments (including impairment, shortened asset lives, and higher decommissioning provisions) as well as more detailed disclosure. This shift highlights that expectations around the adequacy of climate-related financial statement information are becoming mainstream within legal practice. Please see [Transitioning Laws: Accounting for the Impact of Climate-Related Laws](#)

60 IAS 16 and IAS 38 require companies to annually review the estimated residual values and useful lives of their assets. Any changes must be reflected in future depreciation or amortisation recorded. Climate-related issues, such as obsolescence of existing assets, legal restrictions on asset use, or asset inaccessibility, can influence these estimates. Companies must also disclose the expected useful lives of each asset class and any changes in estimated residual values or useful lives, along with the nature and amount of those changes.

61 Source: [Climate-related risks and accounting, ESRB, April 2024](#)

62 IAS 36 – Impairment of Assets, Paragraph 33, several triggers may indicate the need for impairment testing, including both external and internal sources of information. External sources that may serve as indicators include observable declines in the market value of an asset, or significant adverse changes in the technological, market, economic, or legal environment in which the entity operates. These factors can impact the recoverable amount of an asset or cash-generating unit (CGU) and necessitate impairment testing. Internal triggers could involve evidence of physical damage to an asset or underperformance relative to expectations.

63 For instance, under IFRS, Paragraph 129 of IAS 1 [Paragraph 31E of IAS 8] requires an entity to provide these disclosures in a manner that helps users of financial statements to understand the judgements that management makes about the future and about other sources of estimation uncertainty. SEC Regulation S-K Item 303(b)(3) also requires registrants to disclose critical accounting estimates for those involving significant estimation uncertainty that are reasonably likely to materially impact financial condition or results with both qualitative explanations and quantitative sensitivity analysis.

64 For instance, IFRS 13 and IAS 36 require sensitivity analysis for Level 3 fair values and impairment testing, respectively, while SEC Regulation S-K Item 303(b)(3) calls for disclosure of the sensitivity of reported amounts to key estimates and assumptions.

65 While future commitments or capital expenditure plans may not directly impact current financial statements, they are material to understanding a company's transition strategy and climate risk profile and may suggest related adjustments to the asset and liability amounts in the balance sheet, such as impairment charges, useful lives and depreciation changes, or changes in the measurement of decommissioning obligations.

66 Providing a range of sensitivities allows investors to better understand potential financial impairments under different transition pathways. Oil and coal majors have demonstrated that significant impairments would be registered even under less aggressive scenarios like well below 2C, which can provide insights into financial risks. Sensitivity analysis in the financial statements would mirror scenario analyses expected in TCFD reporting but normally focuses on flexing just one input at a time, such as assumed long-term commodity prices or the discount rate used in impairment testing.

67 In most jurisdictions, local company law and/or solvency frameworks set rules around dividend distributions. These are typically rooted in statutory financial statements.

68 Under IFRS paragraph 112 IAS presents the structure of the notes "...provide the information that is not presented elsewhere in the financial statements but is relevant to an understanding of any of them..."

69 Regulation S-K, Item 303, sets out requirements for accounting related disclosures in companies' MD&A disclosures. Paragraph b (3) on critical accounting estimates sets out explicit requirements for quantitative and qualitative disclosures (bold added): "Critical accounting estimates are those estimates made in accordance with generally accepted accounting principles that involve a significant level of estimation uncertainty and have had or are reasonably likely to have a material impact on the financial condition or results of operations of the registrant impact on the financial condition or results of operations of the registrant. Provide qualitative and quantitative information necessary to understand the estimation uncertainty and the impact the critical accounting estimate has had or is reasonably likely to have on financial condition or results of operations to the extent the information is material and reasonably available. This information should include why each critical accounting estimate is subject to uncertainty and, to the extent the information is material and reasonably available, how much each estimate and/or assumption has changed over a relevant period, and the sensitivity of the reported amount to the methods, assumptions and estimates underlying its calculation."

70 Frequently, companies combine audit and risk management in one board sub-committee, which may extend their remit, but the core reporting, accounting and audit responsibilities remain.

71 FRC, [Thematic Review: Viability and Going Concern](#), 2021

72 Under IAS 1 (paras 25–26), management must assess an entity's ability to continue as a going concern when preparing financial statements. [The UK Corporate Governance Code \(Provision 31\)](#) extends this by requiring boards to report on the company's longer-term viability and ability to meet liabilities over the period of their assessment.

73 UNPRI, [Investor Action on Climate Change: Stewardship and Engagement Strategies](#), 2023

74 IIGCC letter to European Companies on Paris-aligned accounts, 2020

75 Carbon Tracker, [Climate Action 100+ Net Zero Company Benchmark: Climate Accounting and Audit Assessment](#), 2023

76 IIGCC, [IIGCC members send letters to UK's largest audit firms on climate risk](#), December 2022

77 ICGN, [Reflecting Climate Related Matters Financial Statements](#), November 2023

78 IIGCC, [Net Zero Voting Guidance](#), January 2024

79 Sarasin & Partners, [Letter to the SEC: Global investors call on SEC to enforce existing accounting disclosure requirements](#), October 2024

80 Shell 2020, 2021, 2022, 2023, 2024 Annual Reports.

81 Sarasin & Partners, co-chair of IIGCC's Accounts & Audit Engagement, initiated dialogue with Shell to address concerns over the lack of consideration of decarbonisation in their financial statements. See Sarasin & Partners [2023 Stewardship Report](#).

82 Shell 2017 Annual report, page 154

83 [Shell 2019 Annual report](#), pp. 176, 181, 212

84 [Shell 2020 Annual report](#), pp. 136, 202, 237

85 [Shell 2021 Annual report](#), page 243

86 Primarily [Climate Action 100+ focus companies](#)

87 See [October 2025 Sixth Round of Assessments](#)

88 See [October 2025 Fifth Round of Assessments](#)

89 Carbon Tracker, [Flying Blind: In a Holding Pattern](#), February 2024.

90 Note this is not a commentary on the quality of transition plans or decarbonisation strategies.

91 Key shareholder votes for climate-related financial disclosure concerns include: (1) Annual Report and Financial Statement approval – a routine vote in most markets (except US) allowing investors to signal dissatisfaction with inadequate climate factor incorporation in accounts or disclosures, though investors should verify implications as majority rejection may affect dividend payments; (2) Audit Committee director appointment – enables shareholders to vote against committee members, particularly the Chair, when material climate factors are excluded from financial statements; and (3) Auditor appointment – allows shareholders to express dissatisfaction with auditors' failure to consider climate factors in audit processes, as auditors are directly accountable to shareholders through AGM votes. See [IIGCC Net Zero Voting Guidance](#)

92 See, for instance, IEEFA's 2025 report ["Climate Risks Underplayed in Recent Credit Rating Actions"](#), which highlights the need for greater scrutiny of rating methodologies.

93 As noted throughout this paper, Carbon Tracker's analysis of companies' financial statements and auditor reports has provided helpful insights that has supported several investor engagements.

94 These examples are illustrative and do not represent full alignment with investor expectations. Quotations are taken directly from company reports.

95 Additional illustrations can be found in the European Securities and Markets Authority's (ESMA) 2023 thematic report "The Heat Is On", which provides further examples of how climate-related assumptions are reflected in impairment testing, provisions, and other financial statement items.

96 See further [Carbon Tracker Climate Accounting and Audit: 2023 Assessments for Climate Action 100+](#) and [Carbon Tracker Flying Blind: Accounting and Audit Regulation](#), March 2025

97 For rate-regulated utilities, the financial impact of climate-related costs may depend on whether such costs are recoverable from rate payors under existing regulatory frameworks, which can affect recognition and measurement of related provisions or asset impairments.



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