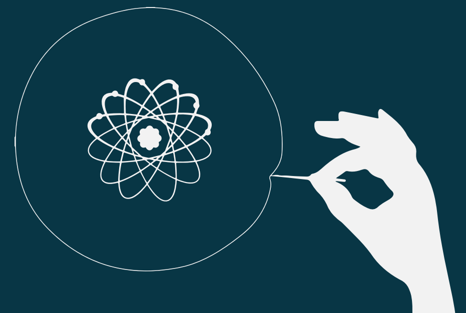
Carbon Tracker Initiative

October 2022

Still flying blind

The absence of climate risk in financial reporting



About Carbon Tracker

The Carbon Tracker Initiative is a team of financial specialists making climate risk real in today's capital markets. Our research to date on unburnable carbon and stranded assets has started a new debate on how to align the financial system in the transition to a low carbon economy.

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About the Climate Accounting and Audit Project

The Climate Accounting and Audit Project (CAAP) is an informal team of accounting and finance experts drawn from the investor community and commissioned by the Principles for Responsible Investment (PRI).

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01

Key Findings

- **Our reviews of 134 highly carbon-exposed companies provided little evidence that they had considered the impacts of material climate-related matters in preparing their financial statements.**[1]
    - 98% of these companies did not provide sufficient information to demonstrate how their financial statements include consideration of the financial impacts of material climate matters.
    - This raised questions about the quality of the financial statements and governance over their preparation, including the accompanying note disclosures.[2]
- **In general, companies failed to disclose the relevant quantitative climate-related assumptions and estimates used to prepare the financial statements, even when they indicated that climate risks may impact these assumptions.**
    - 99% of companies did not comprehensively disclose the relevant assumptions and estimates that we looked for as part of our assessments.
    - This is concerning since companies and their auditors often identified these same assumptions and estimates as both significant to the preparation of the financials and subject to considerable judgement and estimation uncertainty.
- **Companies did not present consistent climate narratives. Their financial statements failed to fully reflect climate considerations included in their other reporting.**
    - All 134 companies had some level of inconsistency. While many recognised that climate-related risks are material and indicated that they are taking steps to set and meet emissions targets, they failed to reveal the relevance in the financial statements. These differences could be evidence of greenwashing.
    - Nearly all auditors refrained from commenting on the inconsistencies that fell within their checks of the financial statements and companies' 'other information'.
- **There was little evidence that auditors considered the impact of material climate-related matters.**
    - 96% of auditors did not sufficiently address how they considered the impact of climate. Overall, Deloitte provided the most comprehensive information and evidence, compared to other firms whose reports were subject to our review.[3]
    - We observed differences in discussions of climate matters between audit reports of the same global firm networks. Notably, none of the auditors of the 46 US companies[4] provided evidence that they considered the impacts of climate matters in such audits.

1 See the list of companies that were subject to our review, and their relevant scores, in Appendix 5.
2 Climate-related matters can include the impacts of physical or transition risks or a company's own targets.
3 Namely Deloitte, Ernst & Young (EY), KPMG and PricewaterhouseCoopers (PwC).
4 This includes Trane Technologies plc and LyondellBasell Industries N.V. which are treated as US domestic companies for their SEC filings.

No company used assumptions and estimates that were aligned with achieving net zero by 2050 or sooner.[5] This was despite a significant majority of companies having targets or ambitions to achieve this drive.

- Although only three companies provided sensitivities to net zero-aligned inputs, this was still an improvement from the prior year. The importance of providing this information was best illustrated by Glencore, which indicated a nearly full write-down of thermal-coal-related assets when using net zero assumptions.
- None of the auditors indicated whether the inputs that the companies used were reasonable in the face of a drive to net zero by 2050 or sooner (and no more than 1.5 degrees warming).

These findings are despite the fact that the IASB, FASB and IAASB, the standard-setters for global company reporting and auditing, have made clear that material climate change issues should be considered in the preparation and audit of financial statements. The US PCAOB's focus team is now also looking into these issues.[6]

Although scores were generally poor, some progress has been made by select companies, which demonstrated how climate-related matters can be taken into account and adequate disclosures provided. We have included examples to illustrate this herein.

5 And no more than 1.5 °C warming.
6 International Accounting Standards Board, Financial Accounting Standards Board, International Auditing and Assurance Standards Board, and the US Public Company Accounting Oversight Board, respectively.

02

Executive Summary

In 2021 we published our first report about the degree to which companies had disclosed taking climate risks into account within financial statements, and auditors in their audits thereof. This report included whether the assumptions and estimates that companies used were transparent and consistent with other aspects of reporting. See *"Flying Blind: The glaring absence of climate risks in financial reporting"* (FB 1.0).

Since then, we have seen a growth in net zero pledges and other climate-related commitments and increased reporting on climate risks 'outside' the financial statements.[7] Yet, most companies still do not appear to be including the financial impacts of such commitments, or indeed climate change risks, in their financial statements. It remains unclear whether auditors are considering these when auditing these financials. This is despite existing accounting and audit requirements to do so, and ongoing investor demands for more transparency.

The failure to demonstrate how such climate-related matters are considered in the financial statements leaves investors in the dark as to whether and how financial statements already include the impacts of such matters. This absence deprives investors of an understanding of the extent to which there is risk hidden in the accounts and incentivises firms to trade on unsustainable assumptions. Without this information, markets are unable to function efficiently ensuring that risks are properly priced, and capital allocated accordingly. This benefits neither investors nor the global effort to decarbonise the global economy.

To help investors, regulators, policymakers, auditors, and companies understand the extent of these shortcomings, in this sequel to FB 1.0 we looked at 134 carbon-exposed companies that sit within the total Climate Action100+ focus company universe. The Climate Action100+ focus companies are key to "driving the global net zero emissions transition" and include those that contribute to up to 80% of global industrial greenhouse gas (GHG) emissions.[8] Given that Climate Action 100+ focus companies were selected for engagement by investors because of their exposure to climate issues, it is difficult to argue that climate is not material to them.

Most of the companies that we reviewed did not provide sufficient evidence that their financial statements included the impacts of material climate-related matters. The failure to provide this information raises questions about whether companies are reflecting the financial consequences of climate risk and the energy transition within their financial statements.

The seeming reluctance of the management of these companies to consider and/or disclose climate-related information in financial reporting may also be an indication of auditors' failures to challenge management and demand it. More generally, the low company scores raise questions about the quality of their corporate governance over these matters. For example, boards typically have an audit committee of independent directors having oversight responsibilities both for the financial statements and for the external audit of those financial statements. In this respect, the relative absence of climate-related information in financial statements and audit reports raises questions whether boards and their audit committees are providing adequate oversight over these matters.

Our work further suggests that auditors are still not comprehensively considering the impacts of these matters in their audits, notably in their risk assessments and testing. It also remains unclear whether market and audit regulators are sufficiently communicating and enforcing extant requirements for both companies and auditors to consider and disclose this information.

7 Given the importance of this there have also been several new proposals internationally for enhanced reporting outside of the financials (so-called 'narrative reporting').
8 See https://www.climateaction100.org/whos-involved/companies/.

Despite the overall poor results, there are several examples of what appears to be company and/or auditor progress on disclosing the extent to which they considered the impact that material climate-related matters have on the financial statements. These examples offer 'proof of concept' that climate-related risks can be accounted for and properly disclosed. We also note that, where sensitivities to net zero by 2050 or sooner and no more than 1.5 °C warming have been provided, those sensitivities demonstrate that the impacts of the energy transition are or will be material, reinforcing the urgent need to take climate into account.

Scope and approach

When evaluating companies' financial statements (and audit reports thereon), we followed the new (provisional) *Climate Action 100+ Climate Accounting and Audit Assessment* (CAAA) methodology.[9] To perform these assessments, we looked for evidence that the following seven metrics had been addressed in line with the methodology. We note that the first five asks are required by accounting and auditing standards today; the last two cover additional items that investors have sought.

- The financial statements demonstrate how material climate-related matters are incorporated (Metric 1a).
- The financial statements disclose the quantitative climate-related assumptions and estimates (Metric 1b).
- The financial statements are consistent with the company's other reporting (Metric 1c).
- The audit report identifies how the auditor has assessed the material impacts of climate-related matters (Metric 2a).
- The audit report identifies inconsistencies between the financial statements and 'other information' (Metric 2b).
- The financial statements use or disclose a sensitivity to, assumptions and estimates that are aligned with achieving net zero GHG emissions by 2050 (or sooner)[10] (Metric 3a).
- The audit report identifies that the assumptions and estimates that the company used were aligned with achieving net zero GHG emissions by 2050 (or sooner) [11] or provides a sensitivity analysis on the potential implications (Metric 3b).

These metrics under the CAAA methodology formed the foundation for our work and the results reported herein. The scores for each metric are based on a binary yes/no system, indicating that the criteria included in the methodology have, or have not been met.

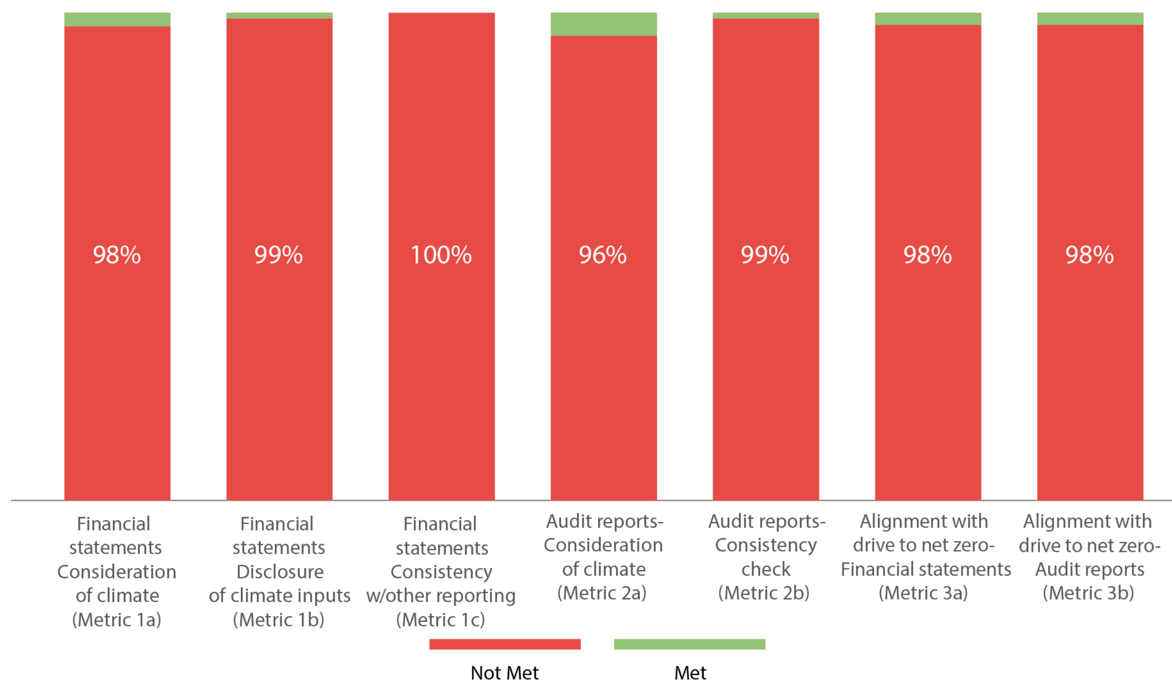
9 Which has been integrated into the Climate Action 100+ Net Zero Company Benchmark since March 2022.
10 And no more than 1.5 °C warming.
11 And no more than 1.5 °C warming.

Results

Our findings suggest that, despite the existence of requirements and investors' requests for transparency, most companies and their auditors are still failing to consider the impacts of material climate matters in financial statements and audits thereof.

None of the companies met all the CAAA metric requirements and achieved an overall "Yes" score. See Figure 1.

Figure 1: Results of the metric assessments



Source: Carbon Tracker and CAAP team analyses

Only eight, or 6%, received "Partial" scores by providing all the information required by the CAAA methodology for at least one of the seven metrics that we used to assess them. See Figure 2.Z

Figure 2: Companies and auditors that achieved an overall partial score for the CAAA assessent

			Overall score	Financial statements			Audit reports		Alignment with drive to net zero	
Company[12]	**Auditor**	**Sector**		**Metric 1a**	**Metric 1b**	**Metric 1c**	**Metric 2a**	**Metric 2b**	**Metric 3a**	**Metric 3b**
bp plc	Deloitte	Oil & Gas								
Eni SpA	PwC	Oil & Gas								
Equinor ASA	EY	Oil & Gas								
Glencore plc	Deloitte	Diversified Mining								
National Grid plc	Deloitte	Utilities								
Rio Tinto Group	KPMG	Diversified Mining								
Rolls-Royce Holdings	PwC	Other transport								
Shell plc	EY	Oil & Gas								

Key to scores[13]	
	Criteria for assessment met
	Criteria for assessment partially met
	Criteria for assessment not met

Source: Carbon Tracker and CAAP analyses.

The remaining 126 companies and their auditors did not meet any of the metric requirements.

We did observe some overall sectoral and regional differences. Companies operating in the Energy sector continue to score the highest. Of the eight companies that avoided overall red scores, five are oil and gas or utilities companies. Additionally, all eight are based in Europe/UK.

We also identified stark differences between audit reports of the same global firm network issued in relation to different companies and countries. This suggests a lack of network policies and/or practices to address climate matters in financial statement audits. Notably, none of the auditors of the 46 US companies provided evidence that they comprehensively considered the impacts of climate matters in such audits. While there are some differences between accounting and audit requirements in the US versus elsewhere, they do not explain the discrepancies that we observed.

At the metric level, 98% of companies did not provide sufficient information to demonstrate how their financial statements include consideration of the financial impacts of material climate matters. Additionally, 99% did not disclose the quantitative climate-related assumptions and estimates that they used to prepare the financial statements, despite most auditors identifying the same types of inputs as subject to significant judgement and estimation uncertainty.

Further, we found that 96% of the audit reports reviewed did not sufficiently indicate whether and how the auditors considered the impact of climate issues (such as emissions reduction targets, changes to regulations, or declining demand for company products) when auditing these companies.

12 All are located in Europe/UK.
13 See full methodology and scoring system in Appendix 1.

Of the 134 audit reports assessed, only one auditor (Deloitte, for its audit report on bp's FY2021 financials) provided comprehensive evidence of consideration of climate change and explained inconsistencies in bp's reporting. Five auditors partially met the requirements for this sub-indicator for their audits of Glencore and National Grid (Deloitte), Rio Tinto (KPMG), Rolls-Royce (PwC) and Shell (EY) by disclosing how they comprehensively considered climate when auditing relevant key audit matters for these companies.

A significant majority of companies indicated that they had targets, goals, or ambitions to achieve net zero/carbon neutrality by 2050 or sooner. But when it came to preparing financial statements, none appeared to align the information that they used to prepare their financial statements with achieving these reductions. Only three companies disclosed sensitivities of financial statement items to achieving the drive to net zero by 2050 or sooner and no more than 1.5 °C warming; the financial importance of which was best illustrated by Glencore's disclosure, which showed a nearly full write-down of thermal-coal related assets in the event of alignment with this drive.

Note: the CAAA methodology that we used to assess FY2021 financial reporting using a stricter scoring system than we used in last year's *FB 1.0*. Companies (and their auditors) only avoided a red score if they disclosed all relevant climate-related information. See Appendix 1 for more information.

Recommendations

The following recommendations reflect the view that companies, auditors, market regulators, policymakers and investors all have roles to play in improving the content and quality of financial reporting of climate matters:

- **Companies** should disclose whether and how they incorporated material climate-related matters into their financial statements and ensure appropriate governance and board oversight thereof.
- **Auditors** must provide full transparency around whether and how they addressed climate-related matters in their audits and investor requests to assess company alignment with achieving the drive to net zero, especially considering their commitments as signatories to the Net Zero Financial Service Providers Alliance.
- **Market regulators** should identify whether companies have incorporated material climate-related matters in their financial statements (and provided adequate disclosure thereof). They should look for reporting inconsistencies, identify audit failures, and take action to enforce financial reporting and audit standards.
- **Governments and policymakers** must prioritise climate accounting matters and ensure that information in the financial statements is consistent with other sustainability information that companies report.
- **Investors** should use the results of this study to help inform engagement, voting and investment decisions.

Overview

3.1 Background

This report is a sequel to *"Flying Blind: The glaring absence of climate risks in financial reporting"* FB 1.0 which we published in September 2021. FB 1.0 evaluated the extent to which companies and their auditors were taking account of material climate-related matters in the financial statements and whether those reports were incorporating assumptions, or sensitivities to assumptions, aligned with achieving net zero emissions by 2050,[14] as investors have requested.

As established in FB 1.0, accounting and audit standard-setters already require climate-related risks to be considered in the financial statements.[15] For example, climate matters,[16] such as declining commodity prices, changing demand, emissions regulations and/or company actions to target emissions reductions can be indicators of impairment and will impact estimates of future cash flows used in impairment tests. The timing of obligations to decommission assets can be significantly impacted by climate matters, including emissions regulations or companies' own targets and strategies. As with any other risk, investors need the corresponding information from financial statements and audit reports to make effective investment, voting and other engagement decisions, as well as to fulfil their own net zero commitments.

The requirements to consider this information have not changed; if anything, actions by regulators and the impacts of recent severe weather-related events have only accentuated the importance of this information to investors.

Investor focus on climate-related matters in the accounts has only grown. In FB 1.0, we noted that investors with over $100 trillion in assets under management (AUM) had written management asking them to consider the risks of climate in audited financial statements. In late 2021, Climate Action 100+ added the CAAA to its Net Zero Company Benchmark, which we have used to assess the data for this study.[17]

In 2022, prior to many corporate annual general meetings (AGMs), 34 investor members of the International Investors Group on Climate Change (IIGCC) sent letters to audit committee chairs and lead audit partners of 17 EU companies asking why investor requests for disclosures about the drive to net zero have not been addressed.

Climate Action 100+ investors work also filed resolutions at both Exxon and Chevron calling for audited, quantitative information about the resilience of their carbon-intensive assets and relevant liabilities to achieving alignment with the drive to net zero. Both votes received the support of a substantial number of shareholders, with a majority of Exxon's shareholders supporting those resolutions.

Concerns about the accounts are now accompanied by a new strand of work on sustainability-related accounting standards. In November 2021, the IFRS Foundation formed the International Sustainability Standards Board (ISSB). The ISSB will develop standards for disclosures that are separate, but complementary to, the information reported in financial statements today. We anticipate that other bodies with oversight of reporting standards such as the European Financial Reporting Advisory Group's project task force will also facilitate and improve the consistency of climate-related information across a company's reporting and disclosures.

14 And no more than 1.5 °C warming.
15 We also refer to these as 'financial reporting', 'financial statements', 'financials' and 'accounts'; they include the note disclosures thereto.
16 In this report we refer to climate change, climate, climate-related matters, climate issues and climate matters interchangeably.
17 https://www.climateaction100.org/ net zero-company-benchmark/

Market regulator concerns are also growing. In October 2021, the European Securities and Markets Authority (ESMA) announced that the European Common Enforcement Priorities for 2021 financial reporting would include a focus on climate-related matters and financial statements prepared in accordance with International Financial Reporting Standards (IFRS Standards or IFRS.)[18] The results of these reviews are expected in early 2023. The UK Financial Reporting Council (FRC)'s 2021/22 corporate reviews will include a focus on climate-related risks, and its 2023 supervisory focus will include an assessment of whether financial statements incorporate the impacts of climate change. Its Supervision programme for audit quality will include a focus on the auditor's work related to climate-related risks.[19] In New Zealand, the Financial Markets Authority has cited climate-related matters (including company consideration in financial statements and consistency across reporting) as one of the areas of interest in its reviews of financial reporting for the 2022-2025 reporting cycle.[20]

Regulators in the U.S. are similarly concerned. In March 2022, the Securities and Exchange Commission (SEC) proposed a climate-related rulemaking for public comment.[21] This highlighted existing accounting requirements and proposed new disclosures (for both in and 'outside' of financial statements) which would complement financial statement requirements for consideration and disclosure of climate matters today.[22] The US Public Company Accounting Oversight Board (PCAOB) noted that in 2022 its target team will focus on "interim financial information (e.g., quarterly reviews) and audits of public companies that include risks related to climate change that would affect a company's financial statements."[23]

Audit firms have previously acknowledged the requirement to bring climate risks into the accounts as evidenced by the December 2020 Global Public Policy Committee (GPPC) *letter* to the Chair and Vice-Chair of the International Accounting Standards Board.[24] They have also signed on to the Net Zero Financial Service Providers Alliance (NZFSPA), which has committed to supporting the global goal of achieving net zero emissions by 2050 (or sooner), and a temperature pathway of no more than 1.5°C (within, the drive to net zero), among other things.[25]

Despite this, we have seen little evidence that auditors are addressing investor requests to assess companies' alignment with this drive. Interestingly, a scattering of positive examples demonstrates that management and auditors can take climate-related risks into account in the financial statements in accordance with the relevant requirements. In this report, references to financial statements include the notes thereto.

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18 https://www.esma.europa.eu/sites/default/files/library/esma32-63- 1186_public_statement_on_the_european_common_enforcement_priorities_2021.pdf

19 https://www.frc.org.uk/news/december-2021-(1)/frc-announces-areas-of-supervisory-focus

20 See Approach_to_oversight_of_financial_statements.pdf (fma.govt.nz).

21 See "The Enhancement and Standardization of Climate-Related Disclosures for Investors", 17 CFR 210, 229, 232, 239, and 249 [Release Nos. 33-11042; 34-94478; File No. S7-10-22]

22 https://www.sec.gov/news/press-release/2022-46, https://www.sec.gov/rules/proposed/2022/33-11042.pdf, and Carbon Tracker's response at https://www.sec.gov/comments/s7-10-22/s71022-20132518-303004.pdf

23 See "Staff Overview for Planned 2022 Inspections"

24 See more discussions in Appendix 1.

25 NZFSPA includes the six largest global audit firms amongst its founders: BDO, Deloitte, EY, Grant Thornton, KPMG and PwC. It is also a member of the Glasgow Financial Alliance for Net Zero (GFANZ). For more information see: Committed to Net Zero - Net Zero Financial Service Providers Alliance (netzeroserviceproviders.com) and Commitment - Net Zero Financial Service Providers Alliance (netzeroserviceproviders.com).

3.2 Objective and scope of this study

The objectives of this report are to:

- Inform investor engagement by increasing awareness about these issues and identifying progress or gaps in company and auditor reporting. By providing examples of good disclosures, we show how it is possible to provide them today;
- Highlight to auditors and policymakers the areas that require improvements; and
- Inform regulatory oversight and enforcement priorities to ensure that markets receive transparent and reliable information about the financial impacts of climate risks today.

Our work focuses on the transparency of consideration of material climate matters in financial statements and the audits thereof.[26] By assessing for consistent and connected information across a company's reporting, our work may also highlight potential deficiencies in other reporting.

Scope and coverage

This report details the findings from our reviews of 134[27] of the Climate Action 100+ focus companies' FY2021 financial statements and audit reports thereon.[28] These focus companies, which are part of the group of the "world's largest corporate greenhouse gas emitters", are seen as key to driving the global net zero greenhouse gas emissions transition.[29] The Climate Action 100+ will include these results in its next Benchmark assessment (expected October 2022). The reviews were conducted primarily by Carbon Tracker with assistance from the Climate Accounting and Audit Project (CAAP). We used the new (provisional) CAAA methodology as the basis for our assessments[30].

The companies subject to this study operate in various sectors across the globe including energy, transportation, industrial, and consumer goods and paper. They follow IFRS or US Generally Accepted Accounting Principles (GAAP) when preparing their financial statements; their financial statement audits were performed in accordance with International Standards on Auditing (ISAs) or auditing standards set by the PCAOB, as appropriate.[31] Figure 3 and Figure 4 provide a split of companies reviewed by sector cluster and location, respectively. The sectors and locations are from the Climate Action 100+ website.[32] A full list of companies reviewed, with respective scores, is provided in Appendix 5.

26 Note that other Carbon Tracker teams do assess focus oil, gas and utilities companies as part of the CA100+ Capital Allocation Alignment Indicators.

27 The remaining 32 focus companies were either not targeted by Climate Action 100+ for engagement this year or their financial statements/annual reports were not available in sufficient time to review for this report, primarily due to the timing of their year-ends. Carbon Tracker will review the latter group when their annual reports are available, and following this, Climate Action 100+ will add the results to its website as part of the Benchmark Assessments.

28 This primarily covers years ended 31 December 2021, with some years ending 31 January and March 2022.

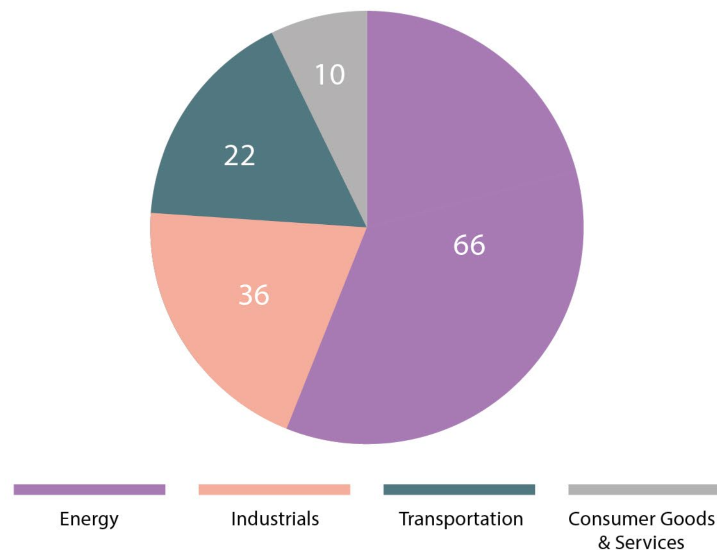
29 https://www.climateaction100.org/about/

30 Climate Action 100+ developed the methodology for the CAAA in collaboration with Carbon Tracker and CAAAP. See discussions herein

31 References to IFRS and ISAs include the local adoptions thereof.

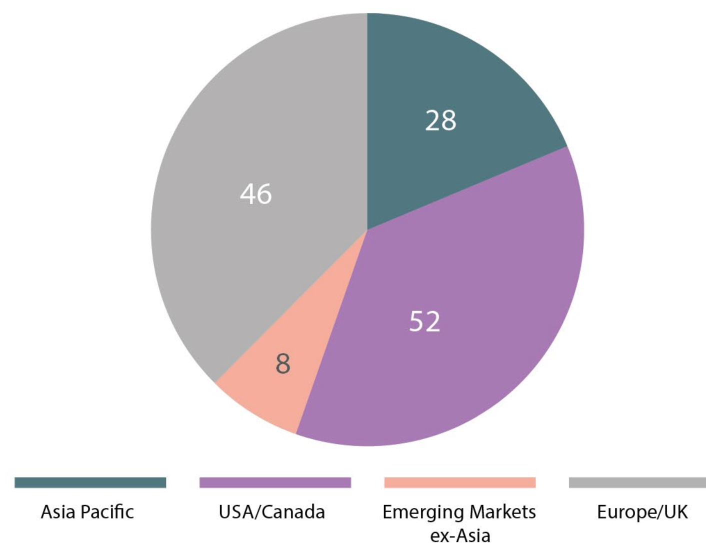
32 See at Companies | Climate Action 100+

Figure 3: Number of companies by sector cluster of the 134 reviewed[33]



Source Climate Action 100+ website

Figure 4: Number of companies by geography of the 134 reviewed



Source Climate Action 100+ website

3.3 Overview of assessment methodology

For this report, we followed the CAAA methodology, the scores for which are based on a binary yes/no system at the detailed assessment, or metric, level. If companies or auditors provided some, but not all, of the relevant information, they did not achieve the related metric and received a "No" or red score. To assess these companies' financial statement reporting (and the audit reports thereon) against the CAAA methodology, we used the following seven metrics:

33 The Energy sector cluster includes coal mining, oil & gas, oil & gas distribution, and electric utilities sectors. Industrials includes cement, chemicals, diversified mining, paper, steel and other industrials. Transportation includes airlines, automobiles, shipping and other transportation.

1. The financial statements demonstrate how material climate-related matters are incorporated (Metric 1a).
2. The financial statements disclose the quantitative climate-related assumptions and estimates (Metric 1b).
3. The financial statements are consistent with the company's other reporting (Metric 1c).
4. The audit report identifies how the auditor has assessed the material impacts of climate-related matters (Metric 2a).
5. The audit report identifies inconsistencies between the financial statements and 'other information' (Metric 2b).
6. The financial statements use, or disclose a sensitivity to, assumptions and estimates that are aligned with achieving net zero GHG emissions by 2050 (or sooner)[34] (Metric 3a).
7. The audit report identifies that the assumptions and estimates that the company used were aligned with achieving net zero GHG emissions by 2050 (or sooner) [35] or provides a sensitivity analysis on the potential implications (Metric 3b).

The first five items address information that is required by accounting and auditing standards today; the last two cover items that investors have specifically requested.[36]

All seven are very similar to the criteria that we used for our FB 1.0 assessments. However, the CAAA binary scoring differs from FB 1.0, where we used a four-level grading system. See more detail in Appendix 1.

We also used the CAAA methodology to review FY2020/21 reporting (herein FY2020)[37] for companies across the full focus list of companies,[38] the results of which were published in the Climate Action 100+ March 2022 Benchmark assessment.

Many of the companies that we assessed for FB 1.0 are included in the population that we analysed for this report using the new scoring system. Accordingly, the results herein may appear worse than FB 1.0, even if some progress was made since the prior year. Appendix 1 contains more detail about the methodology and Appendices 2, 3 and 4 contain examples of reporting by companies and auditors that have made progress, or that continue to provide some information but have not yet achieved a Yes score under the CAAA.

Note: the results do not represent an opinion on the adequacy of company or auditor actions in the face of climate-related matters. They are an assessment of the comprehensiveness of climate considerations (as evidenced by the relevant financial statement disclosures and/or audit report content) considering accounting and auditing requirements and investor requests to consider these issues.

34 And no more than 1.5 °C warming.
35 And no more than 1.5 °C warming.
36 Examples include: Ceres' "Lifting the Veil" and IIGCC's "Investor Expectations for Paris-aligned Accounts".
37 The March assessment included 31 December 2020, 31 January 2021 and 31 March 2021 year-ends (collectively, FY2020).
38 We assessed 164 focus companies for the March 2022 Benchmark Assessment. We did not assess Fiat and Peugeot as they became Stellantis in Jan 2021, Grupo Mexico as an English version of annual report was not available, and Gas Natural SDG SA as it merged to form Naturgy, which was assessed. See results at https://www.climateaction100.org/.

3.4 The audit committee and consideration of climate in financial statements

In general, on behalf of the board, the audit committee or equivalent[39] is tasked with overseeing management's preparation of the financial statements. It bears responsibility for the quality of the accounts and their consistency with company strategy and other reporting. Investors depend on committee members to oversee financial statement audits and identify and address risks to auditor independence, audit quality and investor protection.[40]

The audit committee report is the primary vehicle for communicating its effectiveness to investors; the report can play a role in fostering investor trust. Conversely, a lack of evidence that the committee has considered climate-related risks could suggest weak governance and controls over monitoring the impact of the energy transition on financial results. Investors can also judge the quality of audit committee governance and oversight through the quality and informativeness of the resulting external audit report.

As part of ongoing efforts to improve the quality of information that they receive, investors may vote against the reappointment of audit committee chairs/members if the company's reporting (and external audit report thereon) do not provide the requisite consideration of climate-related information. As noted, we are already seeing evidence of this via flagged votes and investor letters, most recently ahead of 2022 AGMs. Audit committees, therefore, play an important role in both the internal and external oversight of climate information in financial reporting.

Accordingly, although it did not impact our scoring, in performing our reviews of company reports we also looked for and reviewed audit committee reports or equivalent in to provide investors with more insight into this matter.

39 Understanding that not all jurisdictions may have audit committees, references to audit committees herein include audit committees and their equivalent as appropriate.

40 We note that the audit committee also has a role in considering the scope, level and quality of assurance over climate-related financial disclosures outside the audited financial statements as part of enhancing the reliability of such disclosures, including the competency and independence of assurance providers chosen and, if the assurance provider is not the financial auditor, communication and coordination between assurance providers.

04

Results and discussion

Overall, the results show that companies are still failing to comprehensively demonstrate consideration of climate-related risks in their financial statements. However, beneath these top-level results, we have observed both modest improvements and examples of accounting for climate-related risks (or sensitivities thereto) which demonstrate the materiality of those risks.

Several critical themes emerge from the analysis:

- **Ongoing lack of consideration of climate matters:** although most companies acknowledge that climate risks are relevant to their businesses, as in the prior year, they still do not appear to consider the impacts in their financials.
- **Inconsistencies across reporting:** despite an increase in announced emissions reduction targets, notably for achieving net zero by 2050 or sooner, companies have not aligned their financial statements (and the inputs thereto) to achieving this drive. This is in addition to inconsistencies between the financials and other types of company targets, strategies to achieve them, or assessments of climate risk exposure.
- **Lack of quantitative disclosures:** we observed—even if they did not consider the impacts of climate—that companies and their auditors often identified these same assumptions and estimates as both significant to the preparation of the financials and subject to considerable judgement and estimation uncertainty. Despite this, most companies still did not disclose these quantitative assumptions and estimates.
- **Differences across markets:** we continue to see notable differences in company and auditor disclosures between US and EU/UK companies.

We discuss and interpret these results in more detail at the three different scoring levels[41]:

- **Overall assessment results.** These represent each company's combined scores across the three sub-indicators: financial statements, audit reports, and the drive to net zero (as defined).
- **Results per focus area (or sub-indicator).** These are based on the assessments for the relevant metrics.
- **Results for each of the seven metrics.** These assessments form the foundation for the sub-indicator and overall scores.

4.0 Overall assessment results

Of 134 companies, none achieved an overall "Yes" score (i.e., met all the CAAA metric requirements). Only eight companies (6%) received "Partial" scores. This means that the companies and/or their auditors provided all the information required by the CAAA methodology for at least one of the seven metrics that we used to assess them. See Figure 5.

41 Note that the results do not represent an opinion on the adequacy of company or auditor actions in the face of climate-related matters. They are an assessment of the comprehensiveness of climate considerations (as evidenced by the relevant financial statement disclosures and/or audit report content) considering accounting and auditing requirements and investor requests to consider these issues.

Figure 5: Companies (and auditors) that achieved an overall partial score for the CAAA assessment

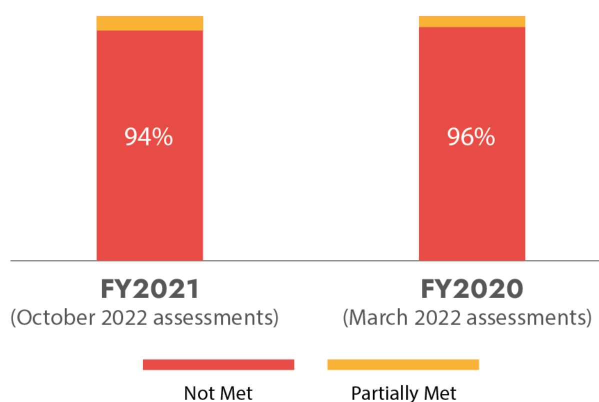
Company[42]	Auditor	Sector	Overall score	Financial statements			Audit reports		Alignment with drive to net zero	
				Metric 1a	Metric 1b	Metric 1c	Metric 2a	Metric 2b	Metric 3a	Metric 3b
bp plc	Deloitte	Oil & Gas	(amber)	(green)	(red)	(red)	(green)	(green)	(red)	(red)
Eni SpA	PwC	Oil & Gas	(amber)	(red)	(red)	(red)	(red)	(red)	(green)	(green)
Equinor ASA	EY	Oil & Gas	(amber)	(red)	(red)	(red)	(red)	(red)	(green)	(green)
Glencore plc	Deloitte	Diversified Mining	(amber)	(red)	(red)	(red)	(green)	(red)	(green)	(green)
National Grid plc	Deloitte	Utilities	(amber)	(red)	(green)	(red)	(green)	(red)	(red)	(red)
Rio Tinto Group	KPMG	Diversified Mining	(amber)	(green)	(red)	(red)	(green)	(red)	(red)	(red)
Rolls-Royce Holdings	PwC	Other transport	(amber)	(green)	(red)	(red)	(green)	(red)	(red)	(red)
Shell plc	EY	Oil & Gas	(amber)	(red)	(red)	(red)	(green)	(red)	(red)	(red)

Key to scores[43]	
	Criteria for assessment met (green)
	Criteria for assessment partially met (amber)
	Criteria for assessment not met (red)

Source: Carbon Tracker and CAAP analyses.

The remaining 126 companies and their auditors did not meet any of the metric requirements. See Figure 8.

Figure 6: Overall results: Year-on-year using CAAA



Source Carbon Tracker and CAAP analyses

Year-on-year changes

As part of the Climate Action 100+ March 2022 Benchmark we assessed the same 134 companies' FY2020 reports using the CAAA methodology. For this study, we assessed these companies' FY2021 reporting. We compare the year-on-year (YoY) results throughout this report.

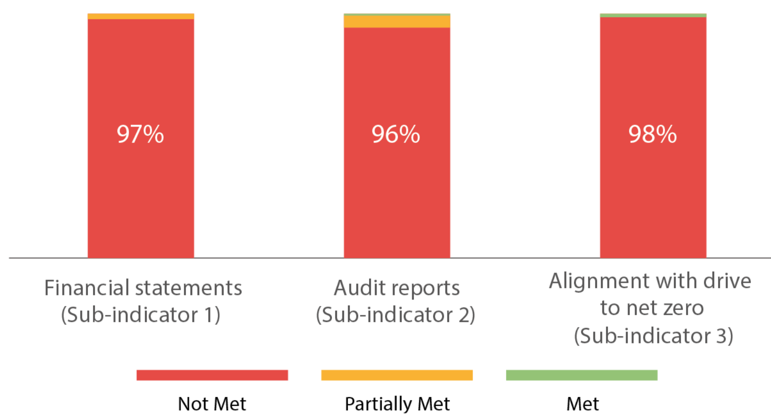
42 All are located in Europe/UK
43 See full methodology and scoring system in Appendix 1.

Of the 134 companies, only five, or 4%, achieved a "Partial" score for their FY2020 reports: bp, Glencore, National Grid, Rio Tinto and Shell.[44] Of these, Glencore, Rio Tinto and Shell avoided a "No" score because their auditors, Deloitte, KPMG and EY, respectively, scored well.

In addition to the five companies in the prior year, only three additional companies and/or their auditors (Eni, Equinor and Rolls-Royce) provided sufficient information about their consideration of material climate matters to receive a "Partial" overall score for FY2021 reporting. Two of the companies, Glencore and Rio Tinto, which avoided an overall "No" score in FY2020 due to their auditors' scores, improved in FY2021 by achieving a "Yes" on at least one of the company-related metrics.

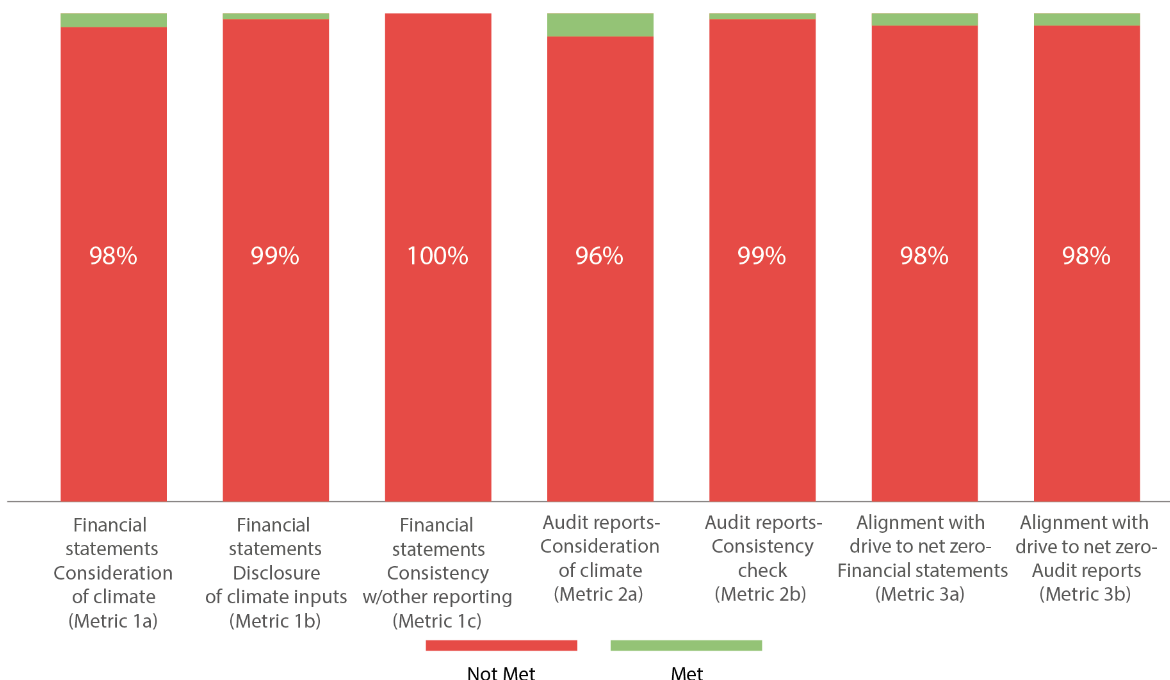
Accordingly, there have been some YoY improvements, but disclosures remain insufficient.

Figure 7: Overall results all Sub-indicators



Source: Carbon Tracker and CAAP team analyses

Figure 8: Results of the metric assessments



Source: Carbon Tracker and CAAP team analyses

44 To note, all legal names of companies are included in Appendix 5.

Figure 7 provides the results per sub-indicator and Figure 8 for each of the seven metrics. When discussing the results in the remainder of Section 4, we include examples of reporting by companies and auditors who have achieved "Yes" scores for the relevant metrics. Further examples of reporting for all metrics can be found in Appendices 2, 3 and 4.

We observed some overall sectoral and regional differences. Energy sector companies continue to score the highest. Of the eight companies that avoided all "No" scores for the seven metrics, five operate in the oil and gas or utility sectors. Additionally, all eight are based in Europe/UK. Accordingly, many of the better examples herein pertain to these companies.

We also identified differences between audit reports of the same global firm network (issued in relation to different companies and countries). This suggests a lack of network policies and/or practices to address climate matters in financial statement audits. Notably, none of the auditors of the 46 US companies provided evidence that they comprehensively considered the impacts of climate matters in such audits. The differences between accounting and audit requirements in the US versus elsewhere do not explain the discrepancies that we observed.

Additionally, as noted above, although it did not impact our assessment scores, we also read these companies' audit committee reports or equivalent. While we have noted some exemplary reports that demonstrate actions of the audit committee in relation to climate and the audited financial statements, too frequently these reports are generic and uninformative.

Audit committee oversight of climate matters in financial reporting

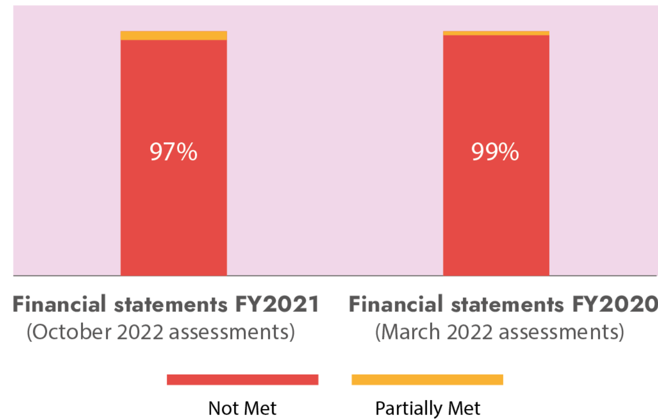
Of 134 companies, 82 (just over 60%) appeared to provide audit committees or equivalent reports. Of these, only 10 audit committees (12%) indicated that they considered the effects of climate risk on the company's current financial statements. For many, this included the company's own climate targets. For the companies whose audit committee reports provided no indication, this could suggest a lack of climate consideration at the highest level of company governance.

For example, the audit committees of Anglo American, bp, Centrica, Glencore, National Grid, Rolls-Royce and Shell indicated consideration of climate in their oversight of financial reporting. They detailed actions performed, such as assessments of management judgments when preparing the financial statements. For example, bp's audit committee assessed the treatment of carbon costs and challenged the anticipated decommissioning liability time frame, especially with respect to refineries, in the light of bp's own aims, while National Grid's audit committee evaluated management's decision that gas lives will not be shortened.

By contrast, even if other companies' audit committees noted that they had a role to play in assessing climate risks to the company, they did not indicate whether or how they actually considered these issues in their oversight of the company's financial reporting or the audit thereof. Some, such as Chevron's audit committee, merely included a generic discussion of the role of management and the external audit committee and the committee's responsibilities with respect to the auditors. Examples of audit committee reports which did not provide any evidence of consideration of the financials include, but are not limited to, those of Bumi Resources, China Shenhua Energy Co., China Steel Corp. and Chevron.

4.1 Sub-indicator 1: Financial statements

Figure 9: YoY financial statement results



Source: Carbon Tracker and CAAP analyses

While we have seen some improvements around evidence of company consideration of climate matters in financial statements, the YoY scores have not significantly changed. To date, no company has achieved a "Yes" for Sub-indicator 1. Of 134 companies, only four partially met Sub-indicator 1 in FY2021 (versus two in FY2020) by providing a comprehensive level of information for at least one of the three financial statement metrics that we assessed. The YoY improvement is attributable to Rio Tinto and Rolls-Royce having provided evidence of comprehensive consideration of climate in their FY2021 financial statements. See Figure 10, and further discussions herein.

Figure 10: Companies that achieved a partial score for Sub-indicator 1: Financial statements

Company[45]	Auditor	Sector	Sub-indicator 1 score: Financial statements	Metric 1a	Metric 1b	Metric 1c
bp plc	Deloitte	Oil & Gas				
National Grid plc	Deloitte	Utilities				
Rio Tinto Group	KPMG	Diversified Mining				
Rolls Royce Holding Inc	PwC	Other transport				

Key to scores[46]	
	Criteria for assessment met
	Criteria for assessment partially met
	Criteria for assessment not met

Source: Carbon Tracker and CAAP analyses.

The gap between IFRS and US GAAP

Of 134 companies reviewed, 85 (63%) followed IFRS or the local equivalent when preparing their accounts; the remainder used US GAAP.[47] As discussed in FB 1.0, the requirements to consider the impacts of material climate matters do not significantly differ between these two sets of standards.

45 All are located in Europe/UK
46 See full methodology and scoring system in Appendix 1.
47 This includes 46 US companies and three Canadian companies.

Despite this, like the prior year, companies preparing IFRS accounts appeared to provide more information than those applying US GAAP. All four companies that partially met Sub-indicator 1 apply IFRS, while no company using US GAAP achieved a "Yes" for any of the metrics. This suggests that investors in the US markets may be receiving less information than their overseas peers.

4.1.1: Metric 1a: Financial statements — Consideration of material climate matters

Only bp, Rio Tinto and Rolls-Royce provided evidence of comprehensive consideration of climate when preparing their financials; see example in Figure 11.

Figure 11: An example of a Yes score for Metric 1a — bp's 31 December 2021 financial statements

> bp explained how it assessed the impacts of the energy transition and climate change across its most relevant assets and liabilities, including property plant and equipment (PPE), intangible assets and decommissioning provisions.
>
> Despite recording an impairment reversal in FY2021 due to the recent spike in prices, bp projected declines in long-term commodity prices for its impairment testing as a result of ongoing efforts towards decarbonisation. It explained why climate considerations would likely not impact the remaining useful lives of oil and gas assets. It stated the expectation that demand for refining products would support the remaining lives of relevant downstream assets, and that relevant decommissioning provisions would not materially change in the face of such matters.
>
> See Appendix 2 for more detail and other examples.

Still too many companies with little or no apparent consideration: the remaining 98%, or 131 companies, achieved "No" scores for this metric

Over half (57%), or 75 of these 131 companies, did not appear to consider the financial impacts of material climate issues at all when preparing their financial statements.

The other 43%, or 56 companies, provided some evidence of consideration of climate in their financials. Levels of transparency ranged from high-level acknowledgements that climate could potentially impact the financials, to more detailed information about how the companies considered the impacts of climate on relevant items.

- Partial evidence of consideration includes examples where climate was considered in relation to the forecasted cash flows used when testing for impairment, but no indication was provided of whether or how it considered for related items, such as estimates of the remaining useful lives of those assets or the timing of related decommissioning obligations.
- Most commonly, companies seemed to omit whether and how climate considerations impacted the remaining useful lives of relevant assets, and whether they considered the impacts of carbon prices or estimated costs of carbon (e.g., as part of achieving their targets) on forecasts of future cash flows.
- A number of companies added an assertion that climate change did not have a material impact on their financials but did not provide further or sufficient explanation as to why, or how, they came to this conclusion. This included but was not limited to companies such as Air Liquide, CRH, Mercedes, OMV and Renault.

4.1.2: Metric 1b: Financial statements — Disclosure of quantitative climate-related assumptions and estimates

As noted in FB 1.0, the assumptions that underpin the financial statements drive the resulting asset and liability values and reported profitability and should be disclosed where material to those financial statements. In spite of this, only National Grid met this metric for FY2021, as it did in FY2020.

Figure 12: An example of a Yes score for Metric 1b: National Grid's FY2021 financial statement disclosures

Most of National Grid's carbon intensive businesses are rate-regulated. This means that, if it can recover any increases in costs resulting from the energy transition,[48] its financial results may not be affected by climate in the same way as non-rate-regulated entities.

However, it is still important for investors to understand how National Grid intends to achieve emissions reductions in line with its own targets, when applicable, and/or if its activities align with global decarbonisation goals. An understanding of the extent to which it will continue to use its fossil-fuel related assets is the best indicator of this; accordingly, we looked for quantitative disclosures of the disaggregated values and remaining useful lives of relevant assets. For example, of total net PPE and intangibles of approximately £61bn, £58bn is related to distribution and/or transmission assets that are subject to price control mechanisms or rate-regulation.

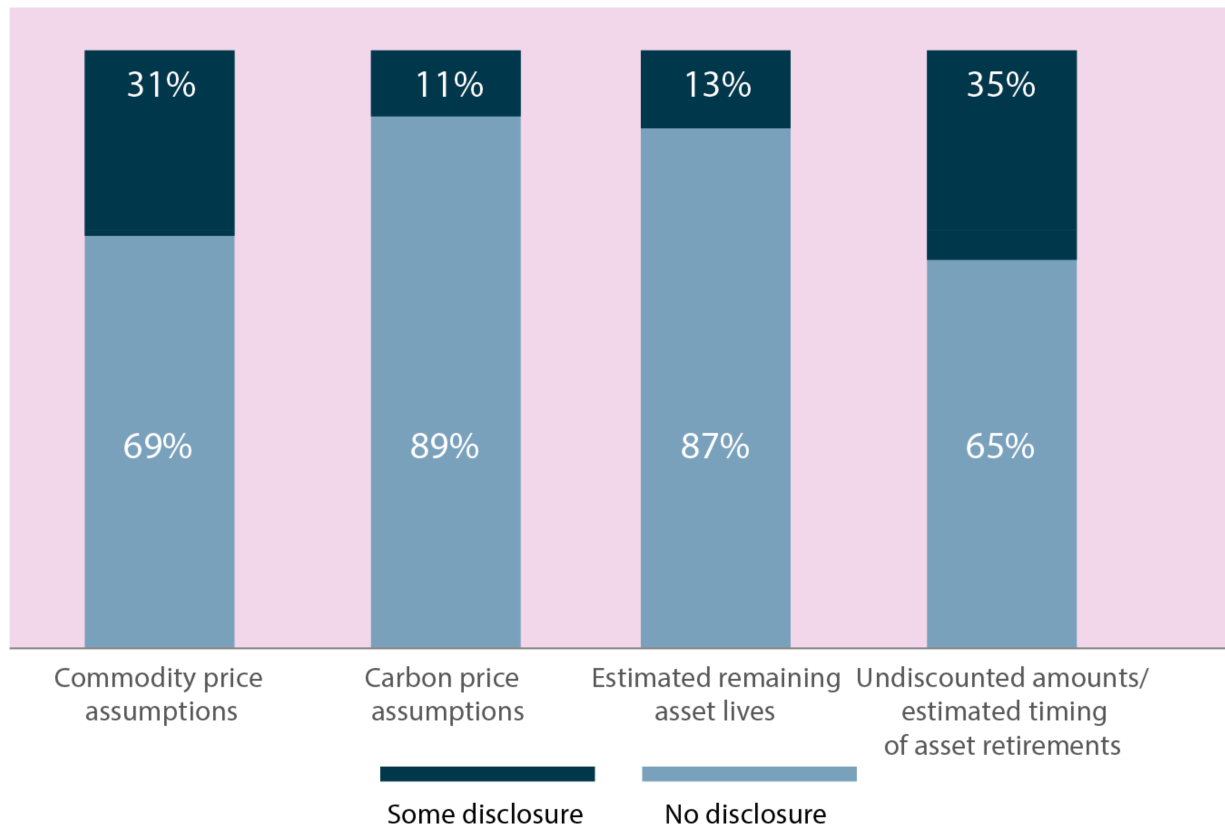
In its FY2021 financials, National Grid disclosed the carrying value of PPE and other intangible assets by segment, and the weighted average remaining useful economic lives for the relevant asset categories. These were the rate-regulated assets that we understood National Grid would have to wind down or reduce relevant emissions thereof in order to achieve its own emissions targets. National Grid also indicated that while the role of gas in the energy transition is uncertain, it believed that its gas assets would be relevant up to the end of their useful lives, which are currently beyond 2050.

See Appendix 2 for more detail and examples for non-rate regulated entities.

48 See also discussion in Appendix 1 Approach to reviews.

Despite the lack of comprehensive disclosure, companies are starting to disclose more quantitative assumptions

Figure 13: Quantitative disclosures for select relevant financial statement inputs



Source: Carbon Tracker and CAAP analyses

Of the 99% (133 companies) which achieved "No" scores for this metric, more than half (58%) disclosed some quantitative climate-related inputs that they used in their financials for the items that we considered to be relevant.

Figure 13 provides examples of the most common quantitative climate-related inputs that we found. In many cases, these disclosures were incomplete. For example, some companies disclosed the oil and gas prices that they used in impairment testing of carbon intensive assets but did not provide the estimated remaining useful lives of such assets or undiscounted costs and estimated timing of decommissioning obligations.

Table 1 provides additional examples of disclosures of quantitative climate-related assumptions and estimates that companies used in their financials (none of these companies achieved a "Yes" for this metric as other relevant inputs were not disclosed).

Table 1: Other examples of quantitative information disclosed by companies -by topic

Topic: Estimated remaining asset lives and any changes in the period:	
bp plc/Oil & Gas	"the significant majority of bp's existing upstream oil and natural gas properties are likely to be fully depreciated within the next 10 years.... Similarly, for refineries, demand for refined products is expected to remain sufficient to support the remaining useful life of existing assets." "The majority of bp's reserves and resources that support the carrying value of the group's existing oil and gas properties are expected to be produced over the next 10 years." *bp Annual Report and Form 20-F 2021*
Rio Tinto Group / Diversified Mining	"The remaining useful economic life for fossil fuel powered assets is monitored closely for indicators of technological obsolescence, however in many instances the requirement for fossil fuel powered back-up means that early retirement of the assets is not practical..." "The weighted average remaining useful economic life of plant and equipment for fossil fuel-based power generating assets is 14 years (2020:16 years)." *Rio Tinto Annual Report 2021*
Shell plc/Oil & Gas	"Based on production plans of existing assets, some 29%, 3% and 0% of SEC proved reserves ... would currently be left by 2030, 2040 and 2050, respectively." "An analysis of Integrated Gas and Upstream production assets of $118 billion... based on planned reserves depletion shows that these assets would be significantly further depreciated under the unit-of-production method by 2030 and fully depreciated by 2050." *Shell plc Annual Report and Accounts 2021*
Topic: Carbon costs: price and volume	
Equinor/Oil & Gas	"To reflect that carbon will have a cost for all our assets, the current best estimate is considered to be EU ETS for countries outside EU where carbon is not already subject to taxation or where Equinor has not established specific estimates. The EU ETS price has increased significantly from 56 EUR/tonne in 2020 and is expected to remain high, in the region of 80 EUR/tonne for the next couple of years. Then the price is expected to be 65 EUR/tonne (27.5 EUR/tonne) in 2030 and thereafter increasing to 100 EUR/tonne (41 EUR/tonne) in 2050 (assumptions used in 2020 in brackets). Norway's Climate Action Plan for the period 2021-2030 (Meld. St 13 (2020-2021)) which assumes a gradually increased CO_2 tax (the total of EU ETS + Norwegian CO_2 tax) in Norway to 2,000 NOK/tonne in 2030 is used for impairment calculations of Norwegian upstream assets." *Equinor 2021 Annual Report and Form 20-F*
TotalEnergies/Oil & Gas	"Value in use also takes into account a minimum CO_2 cost of $40/t or the applicable price in a given country, if it is higher. A linear increase of this price to $100/t in 2030 is assumed. Beyond 2030, the CO_2 price is $100/t inflated by 2% per year." *TotalEnergies Universal Registration Document 2021*
Topic: Decommissioning obligations	
bp plc/Oil & Gas	"The weighted average period over which decommissioning and environmental costs are generally expected to be incurred is estimated to be approximately 17 years (2020 18 years) and 6 years (2020 6 years) respectively." *bp Annual Report and Form 20-F 2021*
Shell plc/Oil & Gas	"The discount rate has been revised from a 30-year to a 20-year term in line with the average remaining life of Integrated Gas and Upstream assets." "Of the decommissioning and restoration provision at December 31, 2021, an estimated $3,863 million is expected to be utilised within one to five years, $3,584 million within six to 10 years, and the remainder in later periods."
Shell plc/Oil & Gas	"In Oil Products, it was industry practice not to recognise decommissioning and restoration provisions associated with manufacturing facilities ... This was on the basis that these assets were considered to have indefinite lives, so it was considered remote that an outflow of economic benefits would be required. In 2020, Shell considered the changed macroeconomic fundamentals, together with Shell's plans to rationalise the Group's manufacturing portfolio. Shell also reconsidered whether it remained appropriate not to recognise decommissioning and restoration provisions for manufacturing facilities. In 2020, provisions of $899 million were recognised for certain shorter-lived manufacturing facilities (see Notes 19 and 26). The remaining five energy and chemicals parks are considered longer-lived facilities that are expected to be resilient in the energy transition, and decommissioning would generally be more than 50 years away." *Shell plc Annual Report and Accounts 2021*

Centrica plc/Electric Utilities

"The real discount rate used to discount the decommissioning liabilities at 31 December 2021 is 0% (2020: 0%) on the basis that market risk-free rates remain suppressed."

"The payment dates of total expected future decommissioning costs are uncertain and dependent on the lives of the facilities but are currently anticipated to be predominantly incurred by 2030."

"Maturity profile of decommissioning provisions (31 December 2021, £1,521m total)"

2022-2026	2027-2031	2032-2036	2037-2041	2042-2046
£741m	£619m	£143m	£12m	£6m

Centrica plc Annual Report and Accounts 2021

Topic: Commodity prices

bp plc/Oil & Gas

" A summary of the group's revised price assumptions for Brent oil and Henry Hub gas, applied in 2021 and 2020, in real 2020 terms, is provided below."

2021 price assumptions	2022	2025	2030	2040	2050
Brent Oil ($bbl)	70	60	60	55	45
Henry Hub gas ($/mmbtu)	4.00	3.00	3.00	3.00	2.75

bp Annual Report and Form 20-F 2021

Devon Energy Corporation/Oil & Gas

"For our impairment determinations, we utilize NYMEX forward strip prices and incorporate internally generated price forecasts along with price forecasts published by reputable investment banks and reservoir engineering firms to estimate our future revenues."

"Devon historically utilized NYMEX forward strip prices for the first five years and applied internally generated price forecasts for subsequent years. In response to the COVID-19 pandemic, the NYMEX forward market became highly illiquid as evidenced by materially reduced trading volumes for periods beyond 2021. Therefore, Devon supplemented the NYMEX forward strip prices with price forecasts published by reputable investment banks and reservoir engineering firms to estimate future revenues as of March 31, 2020. For WTI, the range of pricing utilized in the first ten years of impairment reserve cash flows was approximately $23 to $50, and the weighted average of WTI pricing was approximately $39. For Henry Hub pricing utilized in the first ten years of impairment reserve cash flows, the range was approximately $1.29 - $2.63, with a weighted average Henry Hub price of approximately $1.85. To measure the indicated impairment in the first quarter of 2020, Devon used a market-based weighted-average cost of capital of 9% to discount the future net cash flows".

Devon Energy Corporation Form 10-K 2021

Topic: Estimated costs of meeting targets

Saint-Gobain S.A./Other industrials

"The assumptions used in the asset impairment tests take into account the actions envisaged in connection with the Group's commitment to reduce by 2030 its scope 1 and 2 net carbon emissions by 33% compared to 2017 in order to limit its impact on the environment and contribute to the decarbonization of its markets, in particular an annual amount of €100 million in capital expenditure and research and development expenditure set aside to further its environmental strategy to reduce CO_2 emissions."

Saint-Gobain Universal Registration Document 2021

Most often, companies omitted reporting the estimated remaining useful lives of assets and estimated carbon prices (or relevant costs) used when forecasting cash flows for impairment testing even though many of these companies' operated facilities or sold products subject to CO_2 prices or indicated an intention to rely on technologies such as carbon capture, usage and storage (CCUS) to meet emissions requirements or achieve their net zero targets.

We also noted that, of the inputs disclosed, some were partially aligned with the International Energy Agency Net Zero by 2050 (IEA NZE) price deck (e.g., short-term assumptions may have been significantly higher but longer-term were aligned), some were aligned with other scenarios (most commonly, IEA Sustainable Development Scenario (SDS)) and some did not appear to be aligned with any scenarios (even if the companies had net zero targets). See further discussions of IEA NZE alignment in Section 4.3 for Sub-indicator 3.

More than one third of companies failed to disclose relevant assumptions despite in many cases auditors identifying the same assumptions as critical

The remaining 42% of companies did not disclose any of the relevant quantitative inputs that they used. This is despite current requirements to disclose such information. Many companies identified that assumptions and estimates like projected oil, gas or carbon prices were not only subject to material judgement and estimation uncertainty, but that they were relevant for estimating the recovery values of high-emissions assets or assets used to manufacture high-emissions products. Although many auditors also identified these inputs as subject to significant judgement and estimation uncertainty, the companies did not disclose them. See below and Figure 14, for oil and gas companies.

Significant inputs: auditor versus company disclosures.

In Chevron's FY2021 audit report, PwC identified a single CAM: *The Impact of Proved Crude Oil and Natural Gas Reserves on Upstream Property, Plant, and Equipment, Net*. It noted that Chevron included commodity prices and carbon costs among the variables that would impact its estimated volumes of such reserves.

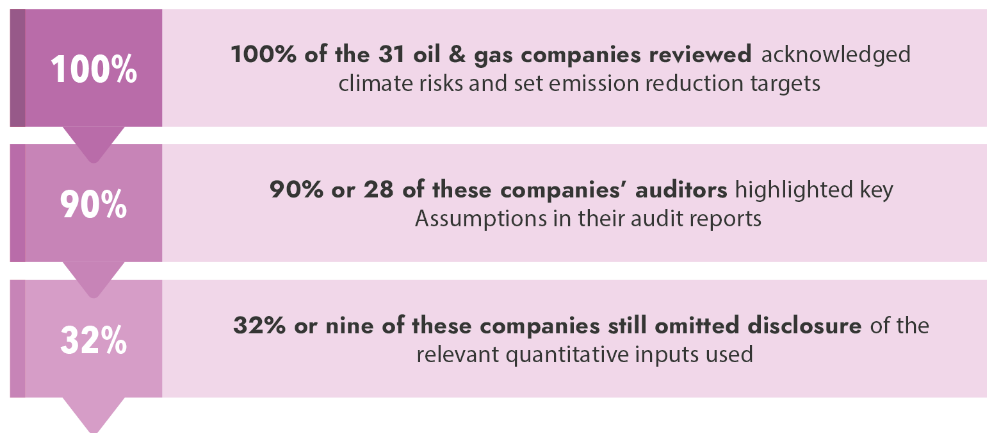
PwC explained that it included this CAM because of the significant judgments by management *"when developing the estimates of such reserve volumes...which in turn led to a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating audit evidence obtained related to the data, methods and assumptions used by management and its specialists in developing the estimates of proved crude oil and natural gas reserve volumes".*[49]

Despite the importance of this information to its financials, Chevron did not disclose the quantitative oil and gas prices or carbon costs that it used. Chevron indicated that these inputs are proprietary, even while peers, such as ConocoPhillips, Devon Energy, and Occidental Petroleum have disclosed some of these inputs.[50]

Source: Chevron Corporation Form 10-K for the year ended December 31, 2021

49 Chevron Corporation Form 10-K for the year ended December 31, 2021, p. 57.
50 Chevron, Climate change resilience: Advancing a lower carbon future, October 2021, p. 29.

Figure 14: Disclosure of climate-relevant inputs that auditors identified – for Oil & Gas companies



Source: Carbon Tracker and CAAP analyses

A summary of the information that we looked for by sector is presented in Table 2 (Appendix 1), while Appendix 2 includes additional examples.

4.1.3: Metric 1c: Financial statements – Consistency with other reporting

Consistency of reporting remains a problem-suggesting that boards and their external auditors have not yet adopted a thorough approach to considering climate

As in the prior year, no company appeared to provide comprehensively consistent climate-related information across its reporting. Note that, under the CAAA methodology, the company's score is contingent on its achieving Metric 1a. This metric further assesses whether the financial statements have fully considered disclosures of climate risk analysis, targets, and strategies outside the financial statements. As only bp, Rio Tinto and Rolls-Royce received a "Yes" for Metric 1a, they are the only companies that could achieve a "Yes" for Metric 1c.

However, we observed some apparent inconsistencies across their reporting. Rio Tinto's and Rolls-Royce's accounting assumptions were not fully aligned with their targets. Equally, bp did not provide sufficient explanation of the differences in production estimates that it used for goodwill impairment testing versus its targets. Appendix 2 provides further discussion of such examples.

- Additionally, companies using IFRS appeared to be more consistent in discrete areas across their reporting than those applying US GAAP. For example, where no US Oil & Gas company appeared to consider climate in its financials (apart from a few generic commentaries about potential impacts), Europe/UK Oil & Gas companies provided information about the impacts of climate matters in their financials (even if they did not indicate the impacts of own targets).

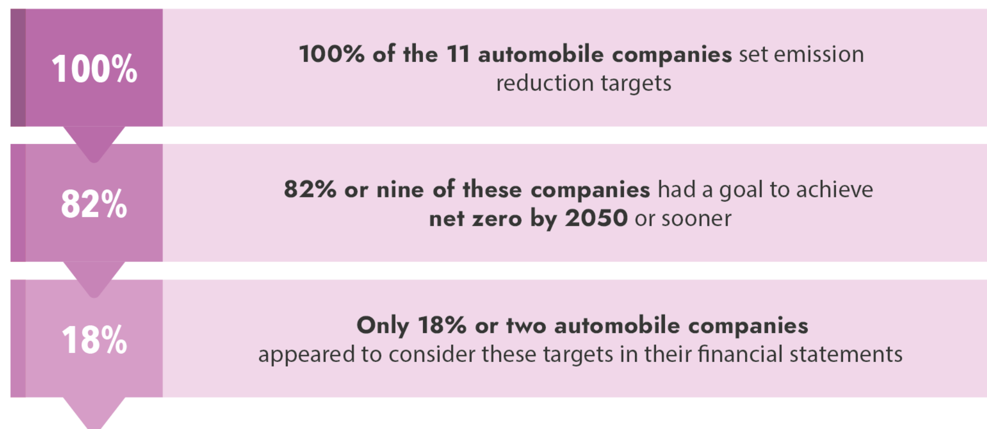
Despite the poor scores, more than half of the companies that we assessed exhibited consistent treatment of some climate-related matters

While no company achieved a "Yes" for consistency, 54% exhibited consistent treatment of some discrete climate matters. For example, they may have identified transition risks, such as declining demand for their high-carbon products, in their other reporting, and demonstrated consideration of the impacts of such risks, such as projecting declining prices for impairment testing, in their financials.

At the same time, however, they might have ignored how the timing of their emissions targets impacted their ability to continue to use, and so the remaining useful lives, of climate-exposed assets.

See examples in Appendix 2 and Figure 15 below.

Figure 15: Consistency in treatment of emissions targets: automobile companies



Source: Carbon Tracker and CAAP analyses

As in the prior year, the results show there is often no clear through-line from a company's climate-related risk or sustainability reporting to its financial statements

Unexplained or insufficiently explained inconsistencies in reporting could be an indication of a material misstatement in the financial statements, other reporting, or both. It could also mean that there is a greater chance that the company's sustainability reporting or emissions ambitions are simply greenwashing.

Following on from this, we would have expected auditors to signal the inconsistencies that fell within the scope of their required procedures. However, as we note in our discussions of Metric 2b assessments (in Sub-section 4.2.2), only one auditor, Deloitte, comprehensively commented on an inconsistency - in its assessment bp's reporting.

4.2 Sub-indicator 2: Audit reports

Only one audit report appeared fairly comprehensive across both metrics

Our results indicate that auditors still need to provide more transparency over whether, and how, they considered material climate matters in their audits and to identify apparent inconsistencies in company reporting.

We were surprised to see such a level of inconsistency since audit firms have publicly acknowledged the importance of these issues in December 2020 when the GPPC sent a letter to the Chair and Vice Chair of the IASB.[51] This has been further reinforced through various channels, including:

- Clarifications from the International Auditing and Assurance Standards Board (IAASB) that consideration of these matters form part of their responsibilities;[52]

51 See https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Audit/gx-audit-climate-related-matters-gppc-letter-to-iasb.pdf
52 See https://www.iaasb.org/publications/consideration-climate-related-risks-audit-financial-statement

- Statements from the PCAOB that in 2022 its target team will focus on “interim financial information (e.g., quarterly reviews) and audits of public companies that include risks related to climate change that would affect a company’s financial statements;”[53] and
- Investor statements of concern about how management and auditors have addressed these issues.[54]

In spite of the above, only Deloitte fully met this sub-indicator by providing evidence of comprehensive consideration of climate in its audit of bp’s FY2021 financials and highlighting the inconsistency in production amounts across bp’s reporting. Each of the “Big Four” auditors had at least one report partially met the requirements for this sub-indicator. See Figure 16.

Figure 16: Auditors that achieved a Yes or Partial score for Sub-indicator 2: Audit reports

Auditor	Company	Sector	Sub-indicator 2 score: Audit reports	Metric 2a	Metric 2b
Deloitte	bp plc	Oil & Gas			
Deloitte	Glencore plc	Diversified Mining			
Deloitte	National Grid plc	Utilities			
KPMG	Rio Tinto Group	Diversified Mining			
PwC	Rolls-Royce Holdings	Other transport			
EY	Shell plc	Oil & Gas			

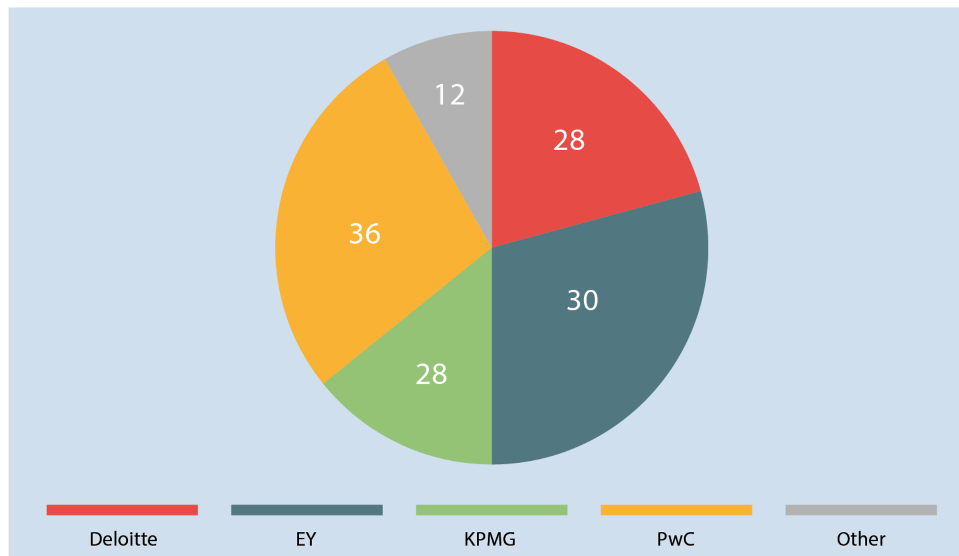
Key to scores[55]	
	Criteria for assessment met
	Criteria for assessment partially met
	Criteria for assessment not met

Source: Carbon Tracker and CAAP analyses.

Fifty-six percent of the audit reports reviewed followed ISAs (or the local equivalent), the remainder applied PCAOB auditing standards. As in the prior year, none of the primary PCAOB audit reports (the audit reports for US domestic companies) appeared to comprehensively consider climate in their audits of these companies, while 8% of ISA audit reports provided evidence of comprehensive consideration of climate. See further discussions herein an in Appendix 3.

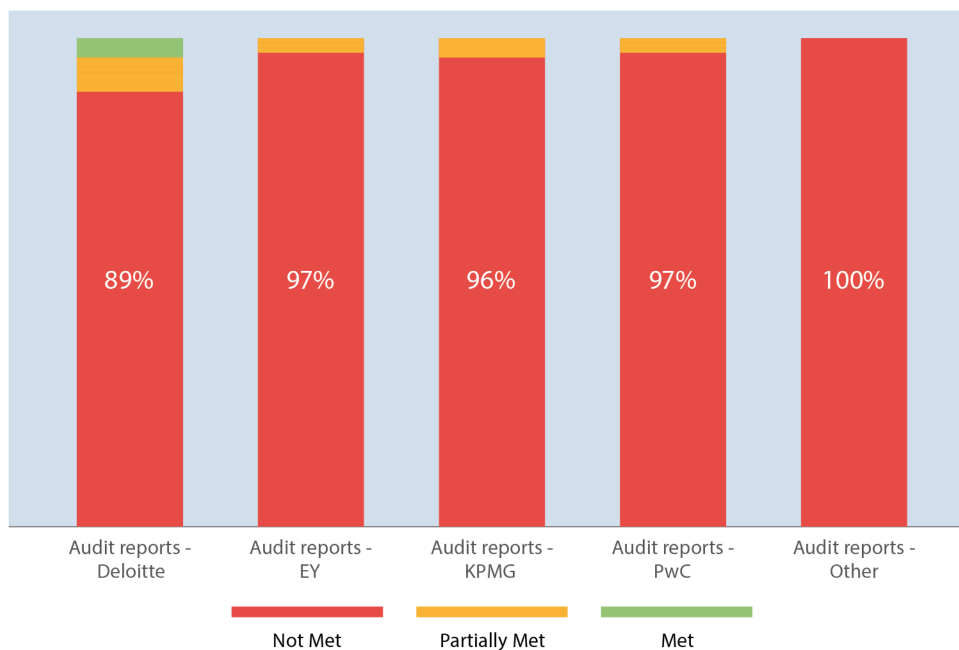
53 See “Staff Overview for Planned 2022 Inspections”
54 https://www.unpri.org/accounting-for-climate-change/investor-groups-call-on-companies-to-reflect-climate-related-risks-in-financial-reporting/6432.article, and https://www.iigcc.org/news/leading-investors-call-on-europes-largest-companies-to-address-missing-climate-change-costs-in-financial-accounts/
55 See full methodology and scoring system in Appendix 1.

Figure 17: Number of companies assessed per audit firm[56]



Source: Carbon Tracker and CAAP analyses.

Figure 18: Sub-indicator 2 scores per auditor



Source: Carbon Tracker and CAAP analyses

Apart from the mix of 'other' auditors, the population of companies was relatively evenly distributed between four audit firms (Figure 17). We observed that, although all auditor scores were low, Deloitte provided more comprehensive information, and evidence, in its audit reports than the other three auditors. It is the only auditor that achieved the consistency metric (Metric 2b) for its work on bp's financial reporting, and so was the only auditor that fully met Sub-indicator 2 (Figure 18). It achieved partial scores for two other audit reports; the other three auditors only achieved a partial score for one audit each.

56 The category "Other" comprises four local firms in India and Indonesia, and eight French companies that were each audited by two firms, as required by law. These include two audits by KPMG/Deloitte, and one each by Deloitte/EY, EY/KPMG, EY/PwC, KPMG/EY, KPMG/Mazars and PwC/KPMG.

Similar to our financial statement reviews, the population of audit reports that we reviewed was not large enough to draw conclusions by audit firm or location. However, of the six audit reports that avoided a "Not met" score for Sub-indicator 2, we noted that:

- All six were located in Europe/ UK;
- Three (for bp, Glencore and National Grid) of the six were audited by Deloitte UK; and
- Two (bp and National Grid) were signed by the same Deloitte audit partner (Douglas King).

Our findings may indicate that the various offices of the same firm network[57] are not yet aligned in their treatment of climate at a regional or international level and that decisions to include discussions of consideration of climate in audit reports are made by the local firm or individual audit partners.

4.2.1: Metric 2a: Audit reports – consideration of climate

Only six audit reports (the audits of bp, Glencore, National Grid, Rio Tinto, Rolls-Royce, and Shell) met this metric. In these reports, the auditors clearly identified the climate-related issues that they considered in performing their audits. They explained the work and testing they performed, such as, but not limited to: using their own climate specialists to assess management's consideration of the effects of climate on inputs used in cash flow estimates for impairment testing; assessing the underlying commodity price assumptions that companies used against external scenarios; and performing their own sensitivities when necessary. Some challenged management's decisions, such as not recording decommissioning provisions in the face of climate change. While the results did not significantly change from FY2020 we did notice some more discussions of climate in audit reports for FY2021, such as in the example in Figure 19.

57 In this report our comments primarily relate to Deloitte, Ernst & Young (EY), KPMG and/or PricewaterhouseCoopers (PwC).

Figure 19: Yes score for Metric 2a — Deloitte's audit report on Glencore's FY2021 financial statements

In its audit report on Glencore's FY2021 financial statements, Deloitte identified several Key Audit Matters (KAMs), including *Impairments of non-current assets and Potential impact of climate change on non-current assets*. In the impairment, KAM Deloitte referenced the climate change KAM for information on how it considered climate-related impairment matters. In the climate-change KAM, it detailed its response to each area of focus, which included coal pricing, asset useful lives, carbon costs, marketing coal goodwill, rehabilitation provisions and consistency between targets and accounting policies.

Procedures performed included, but were not limited to: using valuation experts and Deloitte climate change specialists; comparing assumptions, including the coal production profile, to IEA scenarios; challenging whether Glencore's sensitivities provided a further indication of thermal coal asset impairments and whether Glencore could pass on carbon costs; challenging useful lives of assets and comparing them to life of mine assumptions; performing sensitivities on carbon costs; assessing whether cash flows were aligned with the wind-down of coal production and timing of asset rehabilitation; and reading the other information in the annual report for consistency.

Deloitte described its findings, including that no reasonably possible change in assumptions would result in a material impairment in the next year. It found management's coal price position and timing of relevant cash flows to be reasonable. For more examples, see Appendix 3.

Over a third of audit firms showed some progress towards climate consideration, even while leaving gaps on fully meeting the metric criteria

While for the remaining 128 audits the auditors did not appear to have comprehensively considered the impacts of climate, 38% of these still provided some evidence of consideration. For example, KPMG/EY for TotalEnergies, EY for OMV and PwC for Repsol added a separate KAM on climate to their reports in FY2021 but did not appear to comprehensively address all climate-related items in their audits. Other auditors do not appear to have considered climate change for all relevant matters or financial statement items or have only provided a general comment that climate could impact the company without any further evidence of consideration. See examples in Figure 20 and Appendix 3.

Figure 20: Example of audit report commentary evidencing some consideration: Holcim

Partial consideration of company targets and KAMs (Deloitte/Holcim)

Amongst other items, Deloitte identified KAMs on goodwill and PPE impairments in its audit report.

For the goodwill KAM, Deloitte assessed the potential financial impacts of Holcim's 2025 and 2030 targets and strategy and how they were integrated into the company's goodwill impairment testing. However, Deloitte did not indicate whether it considered Holcim's longer-term and more ambitious targets/strategy as part of its assessment, nor was it clear whether or how Deloitte considered the impacts of wider regulatory and market shifts due to the energy transition.

For the PPE impairment KAM, Deloitte noted that Holcim had determined that its "Accelerating Green Growth" strategy *"did not have a material impact on the impairment assessment of PP&E"*. However, it was unclear what work Deloitte did to become comfortable with this conclusion. Additionally, Deloitte did not indicate whether it considered the impact of Holcim achieving its own targets (e.g., the costs of CCS and retrofitting or shorter asset lives), or of other climate matters, when assessing Holcim's PPE impairment, even though the recovery of PPE also appeared to be exposed to risks from the energy transition (e.g., increases in carbon prices and shifts in product demand). See additional examples in Appendix 3.

The remaining 62% of auditors received a "No" as they did not provide any evidence of consideration in their reports. Based on this, it was unclear if the relevant auditors were following requirements to consider material climate matters and report accordingly.

Differences in climate considerations by auditors for same company in different jurisdictions continues

As in the prior year, none of the primary PCAOB audit reports provided evidence of consideration of climate in the audits of these companies in any significant way. The population of companies also included foreign private issuers (FPIs) - entities that are listed on both local exchanges outside the US and are registered with the US SEC. Auditors of FPIs are required to follow PCAOB auditing standards for the US filings; this results in two audit reports for a FPI (an ISA report for the local filing and a PCAOB report for the US). While we only assessed auditors based on the content of their local (primary) audit reports, we looked at their PCAOB reports for consistency of information. During our reviews, we identified eight FPI audit reports in which the auditors referenced some consideration of climate in the KAMs. Of these, five removed some or all references to climate in their PCOAB audit reports as follows:[58]

- PwC removed all discussions of climate from its PCAOB audit report for Eni;
- KPMG removed the separate discussion of climate change outside of the KAMs from its PCAOB audit report for Unilever; and
- EY for Shell, Deloitte for bp, and KPMG/EY for TotalEnergies kept climate discussions in CAMs for the same accounting topics but removed the climate change KAM from the PCAOB audit report.

We believe that for these companies, the same or similar climate-related information in both CAMs and KAMs would have been appropriate. The audit reports are on the same company's financials,

58 To note, not all of these auditors achieved a "Yes" for Metric 2a.

performed by the same audit firm and, for most, signed by the same lead audit partner.[59] Additionally, we are not aware of any prohibition on including such information in CAMs or in PCAOB audit reports in general.

In fact, individual climate change matters, such as the one that EY removed from Shell's PCAOB audit report, appear to meet the definition of a CAM. The matter was communicated to the audit committee, related to accounts or disclosures that are material to the financials, and involved challenging or subjective auditor judgements. Further, a CAM *"may not necessarily relate to a single account or disclosure but could have a pervasive effect on the financial statements if it relates to many accounts or disclosures"*.[60] Although there are some differences between ISA and PCAOB audits, as in the prior year, they would not appear to explain these variations.

Our findings suggest that investors and regulators in these different markets are receiving different information about whether and how auditors considered climate, including when auditing the same company's financial statements.

Audit matters identified that can be affected by climate

- Of 134 audit reports, 56% included impairment of non-current assets (PPE, goodwill and other intangibles or both) as a key or critical audit matter. Despite this, 61% of these audits did not appear to make the connection between these items and the fact that future cash flows can be impacted by climate, leaving investors wondering whether they are exposed to the risk that climate had not been considered. As in FY2020, given the general dependency of impairment assessments on long-term cash flow generation, this again appears to be a significant lack of regard for climate, particularly for this population of carbon-exposed companies.
- Additionally, we note that nearly half (49%) of the companies that we assessed operate in the energy sector, for which many financial statement items can be significantly impacted by climate-matters. Despite this, only 3% of audit matters related to decommissioning provisions; a minor amount for such an important issue. Examples of other common items requiring significant judgments that can be impacted by climate but were identified less frequently include (but are not limited to) useful lives of assets/asset depreciation (5%), recovery of deferred tax assets (5%) and impairment of joint ventures/associates operating in climate-impacted industries (2%).

We continue to emphasise the importance of understanding whether/how these areas have been assessed; all of these can likely be impacted by climate-related risks and estimation uncertainty, along with many of the other key or critical audit matters that the auditors did identify.

Limited use of external experts by auditors for climate risks[61]

As detailed in Appendix 1, auditors are required to determine whether they need to use outside experts to assess the impacts of climate on the audit of key or critical matters. While most audit reports

59 Note the Eni ISA report was signed by Massimo Rota; the Eni PCAOB report was signed by Scott Cunningham.

60 See https://pcaobus.org/Standards/Documents/Implementation-of-Critical-Audit-Matters-The-Basics.pdf and AS 3101: The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion, https://pcaobus.org/oversight/standards/auditing-standards/details/AS3101.

61 Under ISAs these are 'auditor's experts', under PCAOB standards these are 'auditor's specialists'. ISA 620 Using the Work of an Auditor's Expert and PCAOB Staff Guidance: Supervising or Using the Work of an Auditor's Specialist. When looking at this information, we looked at the use of any experts, be that on climate or other matters, such as valuation specialists.

referenced use of experts in some fashion, as in the prior year, our reviews highlighted differences in the auditors' use of experts, particularly in the face of climate-related matters. We would have expected to see a greater use of independent experts in the assessment of climate-related matters. For example:

- PCAOB audits: PwC used management specialists and not its own when assessing the appropriateness of estimates in testing the impacts of oil and gas reserves changes on Exxon's upstream PPE. By contrast, KPMG used its own valuation specialists when evaluating the forecasted commodity price assumptions that Devon used.
- ISA audits: PwC used its own valuation experts when assessing assumptions and estimates that Repsol used for calculating the carrying values of PPE, intangibles and join ventures. EY used its own valuation specialists when assessing ENEOS' goodwill impairment testing. When testing the potential impact of climate on bp's PPE, goodwill, intangibles and provisions, Deloitte used its own climate change specialists. It established a climate change steering committee, with *"senior partners with specific climate change and technical audit and accounting expertise...to provide an independent challenge to Deloitte's key decisions and conclusions"* on these issues.[62]

At ~40% of ISA audits versus ~30 % for PCAOB audits, ISA audits (or the local equivalent) appeared to use, or at least reference the use of, experts slightly more frequently.

While auditors must use judgement when determining the need for experts, ta lack of the use of experts might suggest different levels of audit quality. This is particularly salient in the light of the PCAOB's post-implementation review of its standard on the use of experts.[63]

62 bp Annual Report and Form 20-F 2021, p.170.
63 See Ceres' and Carbon Tracker's combined response to this consultation .

4.2.2: Metric 2b: Audit reports — consistency check

As highlighted in our financial statement assessment for Metric 1c (in Sub-section 4.1.3), we continue to observe apparent inconsistencies across company reporting; no company met the consistency assessment for FY2021. Following on from this, we would have expected auditors to have signalled the inconsistencies that fell within the scope of their required procedures. However, only Deloitte comprehensively commented on an inconsistency in its audit of bp that we also identified. See the example in Figure 21 and examples that were scored "No" in Appendix 3.

Figure 21: An example of a Yes score for Metric 2b — Deloitte's audit of bp's FY2021 financial statements

In the notes to its FY2021 financials, bp acknowledged that the production estimates it used for goodwill testing do not include the "full extent of the expected upstream production reduction" of ~40% by 2030 (from 2019) that it referenced throughout its report. However, bp did not provide further information about this inconsistency. For example, it was unclear if bp's sensitivity of goodwill impairment to changes in revenues or production covered the ~40% decline. bp referenced "anticipated portfolio changes" to explain a FY2021 impairment of $1.1bn but did not clearly connect this to the difference in the production amounts used for goodwill impairment testing.

Deloitte highlighted the difference in bp's estimated production amounts in the audit report and its assessments of these differences, including:

- Noting that bp's expectation to reduce hydrocarbon production ~40% by 2030 (from 2019) "includes potentially disposing of certain high emissions intensity upstream oil assets and others";
- Assessing whether the progression of bp's projects would be inconsistent with bp's intended reduction in production, other elements of its strategy such as its net zero carbon aims, and bp's 'no exploration in new countries' commitment; and
- Connecting the $1.1 bn impairment charge to bp's intention to reduce its hydrocarbon production.

Deloitte concluded that management's forecasts were not consistent "in aggregate" with bp's strategy (-40% production by 2030), "because bp expects to dispose of certain non-core assets in future periods". See further detail and examples in Appendix 3.

NOTE: Deloitte also provided a PCAOB audit report for bp's SEC filing. Although we did not assess Deloitte on the basis of the PCAOB report, we reviewed it for any differences from the ISA report. Consistent with the ISA report, Deloitte indicated that it considered the potential impact of bp's intended decrease in hydrocarbon production. However, unlike the ISA report, in its PCAOB audit report Deloitte did not state that bp's forecasts were not consistent in aggregate.

4.3 Sub-indicator 3: Alignment with drive to net zero[64]

Although not currently required, investors have also requested that companies incorporate the impacts of achieving net zero by 2050 or sooner and no more than 1.5 °C warming (the drive to net zero) into their financials. This can be done by using financial inputs aligned with this drive or by providing a sensitivity of relevant financial statement items thereto. Investors have also asked that auditors assess management's inputs or sensitivities to achieving this drive or perform their own sensitivities. As

64 For the purposes of this report, "drive to net zero" comprises net zero by 2050 or sooner and no more than 1.5 °C warming.

detailed in Appendix 1, when assessing against this sub-indicator, we referenced the price deck and relevant projections from IEA NZE in the *World Energy Outlook, October 2021*.

Of the 134 sets of financials and audit reports, only three met this sub-indicator. Although not significant in number, the YoY changes here are the most noticeable. In the prior year no companies or auditors provided information that aligned with achieving the drive to net zero (although some used inputs based on, or provided sensitivities to, other scenarios, such as to the IEA SDS).[65] By contrast, for FY2021 reporting, three companies (Eni, Equinor and Glencore) provided sensitivities to assumptions aligned with this drive, and their auditors assessed those sensitivities. See Figure 22.

Figure 22: Companies (and auditors) that achieved a Yes score for Sub-indicator 3: Alignment with drive to net zero

Company	Auditor	Sector	Sub-indicator 3 score: Alignment with drive to net zero	Metric 3a	Metric 3b
Eni SpA	PwC	Oil & Gas			
Equinor ASA	EY	Oil & Gas			
Glencore plc	Deloitte	Diversified Mining			

Key to scores[66]	Criteria for assessment met
	Criteria for assessment partially met
	Criteria for assessment not met.

Source: Carbon Tracker and CAAP analyses.

We have also seen an increase in shareholder pressure to use inputs aligned with, or provide sensitivities to, IEA NZE. See Figure 23.

65 As noted in FB1.0, IEA NZE was first published in May 2021 and may not have been available as a reference price deck for most 2020 annual filings. However, other scenarios that more closely addressed these preferred goals were already in existence, including, for example, the IEA's "Beyond 2 Degrees" Scenario (B2DS) which has been used in previous Carbon Tracker reports.
66 See full methodology and scoring system in Appendix 1.

Figure 23: Investors respond to lack of information: shareholder resolutions at Exxon and Chevron

Shareholder resolutions: In advance of 2022 AGMs, shareholders filed resolutions requesting that *Chevron* and *Exxon* provide audited reports which assess how using IEA NZE would affect the assumptions, costs, estimates and valuations underlying their financial statements.[67] We understood this to call for, at a minimum, the dollar amount difference between commodity and carbon prices that the companies used in their financial statements and those in the IEA NZE, and the resulting dollar impacts of using IEA NZE assumptions on remaining asset lives, asset impairments, and asset retirement obligations (AROs).

The proposals went on to receive significant shareholder support. The Exxon resolution "garnered a majority shareholder vote at Exxon's annual meeting"[68] while a significant minority (39%) of "shareholders voted in favor of the Chevron resolution."[69] The companies have not yet responded.

Carbon Tracker's analyses of Exxon and Chevron's FY2020 financial statements for FB 1.0 (and for the March 2022 Benchmark) found that neither company disclosed any of the relevant climate-related inputs, such as forecast oil and gas prices and estimated production amounts, that it used in its financials. Without this information, investors cannot estimate the impacts of using IEA NZE assumptions on remaining asset lives, asset impairments, and asset retirements. Investors need this information to assess the extent to which Exxon and Chevron are including climate change considerations in their respective financial statements (if at all) as well as their resilience to the energy transition and achieving the goals of the Paris Agreement.

In response to these resolutions, Exxon indicated that its *Addressing Climate Solutions - 2022 Progress Report* addressed this request and so the shareholder proposal was "unnecessary."[70] Chevron claimed that it had "substantially addressed the request" in its *Climate Change Resilience: Advancing a Lower Carbon Future (October 2021)* report.[71]

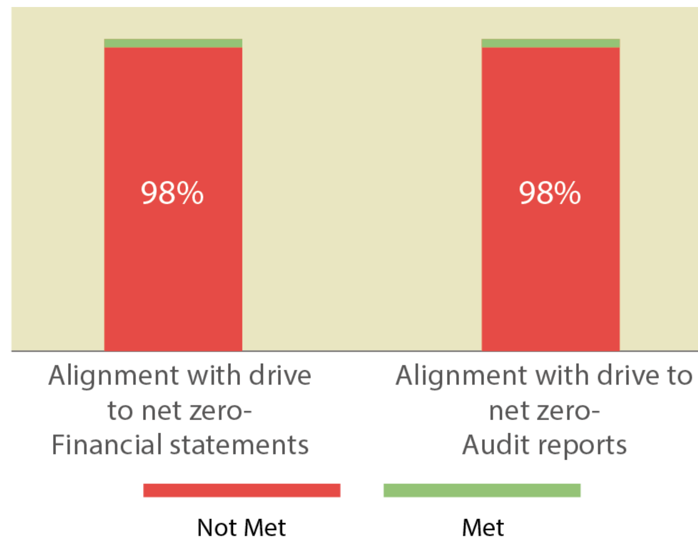
Carbon Tracker analysed these responses and assessed *Chevron* and *Exxon's* FY2021 financials.[72] We determined that neither company met these shareholders' requests. Notably, in the MD&A sections of their annual filings,[73] both appeared to indicate that it was not practicable to provide sensitivity analyses.

This is an example of investor responses to the lack of relevant disclosures. We understand that investors will continue to exert pressure on companies to provide this quantitative information at a meaningful level and that such requests, which are gaining significant traction, will become more and more public.

We also note that there is a growing understanding by companies of investor needs for this information. In FY2021, European peers Eni, Equinor and Glencore disclosed sensitivities to specific carbon-intensive assets using IEA NZE inputs, while bp and Shell provided sensitivities to hybrid net zero scenarios. In 2022, similar resolutions, such as for Marathon and Valero, were subsequently withdrawn in favour of an agreement with the companies. For example, Marathon Oil agreed to provide a quantitative analysis of IEA NZE and "its impact on select indicators requested in the proposal."[74]

67 See: https://engagements.ceres.org/ceres_engagementdetailpage?recID=a0l5c00000lXTueAAH and https://www.asyousow.org/resolutions/2021/12/9-chevron-request-to-improve-climate-related-audit-procedures. T Rowe also published a case study and BlackRock issued public vote bulletins noting inadequacy of Exxon's disclosures.
68 https://cbisonline.com/us/wp-content/uploads/sites/2/2022/05/2022-XOM-Resolution-CBIS-PR-05.27.22.pdf. Prior year resolutions also received near majority votes, reflecting longer term investor interest in this information.
69 https://www.asyousow.org/press-releases/2022/5/25/chevron-shareholders-climate-risk-annual-general-meeting
70 DEF 14A Exxon Mobil Corporation 2022 Proxy Statement, p. 77.
71 Chevron also refers it as its "October 2021 TCFD-aligned Climate Report", DEF 14A Chevron Corporation 2022 Proxy Statement.
72 The results are included in this report and will be part of the October 2022 Benchmark assessment.
73 Management's Discussion and Analysis of Financial Condition and Results of Operations.
74 See Christian Brothers Investment Services, Inc Shareholder Solicitation by 3rd Party PX14A6G (sec.report), p. 4 .

Figure 24: Results of the drive to net zero metric assessments



Source: Carbon Tracker and CAAP analyses

4.3.1: Metric 3a: Alignment with drive to net zero – Financial statements

As noted in Appendix 1, there are two ways of meeting this metric: a company can align its inputs with achieving this drive, or it can perform a sensitivity of relevant financial statement items to inputs aligned with this drive.

As noted in Sub-section 4.1.2 (the results of Metric 1b assessments), over half (58%) of companies disclosed at least some of the quantitative climate-related inputs that they used (an improvement from 25% in FB 1.0).[75] Some of these inputs were partially aligned with IEA NZE (e.g., short-term assumptions may have been significantly higher but longer-term were aligned), some were aligned with other scenarios (most commonly, IEA SDS) and some did not yet appear to be aligned with any credible climate scenario (even though often these were companies that had net zero targets). We could not assess the other 42% of companies as they did not disclose any quantitative inputs.

No company used inputs that were fully aligned with achieving this drive.

Only 2%, or three companies - Eni, Equinor and Glencore - achieved this metric by providing sensitivities to commodity prices (and CO_2 prices for Eni and Equinor) that were aligned with the IEA NZE price deck. Eni sensitised its oil and gas CGUs, Equinor its oil and gas PPE (see Figure 25), and Glencore its thermal coal and oil exploration and production CGUs (see Figure 26).

- This is an improvement from the FY2020 reports that we reviewed, where no companies met investors' requests for this information.
- Additionally, several companies that did not meet this metric performed sensitivity analyses for similar climate scenarios, although the inputs used were not aligned with this drive to net zero. For example, Shell and bp provided sensitivities to variations of, or hybrid, net zero scenarios, and disclosed more information than most of the companies that we reviewed. Appendix 4 includes examples such as these.

75 Carbon Tracker, Flying blind: The glaring absence of climate risks in financial reporting, 2021, p. 39.

Figure 25: An example of a 'Yes' score for metric 3a – Equinor's FY2021 financial statements

In its FY2021 financials, Equinor acknowledged that the projected long-term price assumptions that it used in its PPE impairment testing were not aligned with the drive to net zero. Additionally, it performed a sensitivity of its value in use (VIU) impairment assessments for PPE to using IEA NZE commodity and CO2 prices and noted that this could result in pre-tax impairment of approximately $7bn.

For context, in FY2021 Equinor had net income of $8.6bn in FY2021, net PPE of $62.1bn (of which $45.6bn related to production plants and oil and gas assets and $12.3bn to assets under development), and total assets of $147.1bn. In the future, we note that an understanding of the estimated impacts on the carrying amount of intangible assets ($6.5bn at y/e), and of the timing of AROs, would also be useful as part of this sensitivity analysis.

This information helps investors understand the potential impact on Equinor's oil and gas PPE, its most significant fossil fuel related assets.

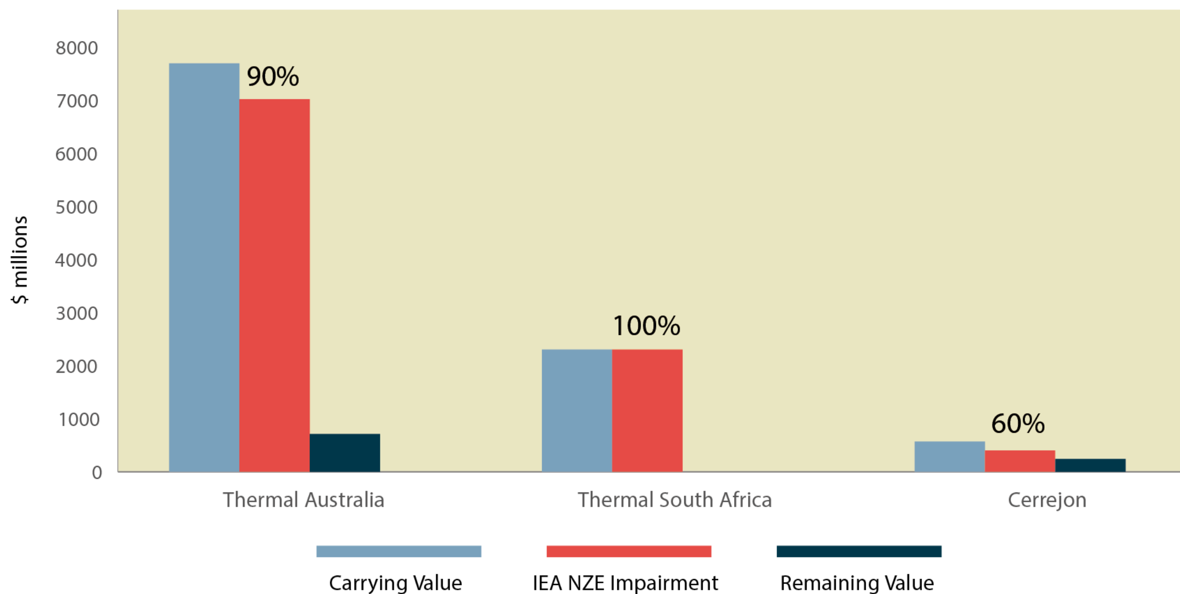
This again demonstrates how climate-related matters, particularly the phase out of high emissions fossil fuels in an effort to achieve alignment with the drive to net zero, can impact an entity's assets and illustrates the importance of understanding whether companies have considered these impacts.

Why do climate matters matter?

Glencore aims to achieve net zero total emissions (i.e., Scope 1, 2 and 3) by 2050 with "a supportive policy environment". While the assumptions and estimates that it used to prepare its FY2021 financial statements were not aligned with achieving these targets, Glencore provided sensitivities of its thermal coal cash generating units (CGUs) to using assumptions from the IEA NZE. Figure 26 illustrates Glencore's estimated impairment of "non-current capital employed" for each of its thermal coal CGUs which acts as a proxy for the carrying value of the related assets. For example, using assumptions based on IEA NZE, $9.6bn of Glencore's $10.6bn in thermal coal assets would have been written down at year end.

The analysis demonstrates how climate-related matters, particularly the phase out of high emissions fossil fuels, can significantly impact an entity's relevant assets and illustrates the importance of understanding whether (and how) companies have considered the impacts of climate on carbon-intensive assets.

Figure 26 - Glencore's FY2021 impairment sensitivities using IEA NZE assumptions



Source: Carbon Tracker and Glencore Annual Report 2021

Even when companies have net zero targets, they do not appear to have aligned their inputs with achieving this drive. In this way such targets may appear to be greenwashing.

We observed that a significant majority of the companies that did not meet this metric do have targets (including goals or ambitions) to achieve net zero by 2050 or sooner. Despite this, none of the quantitative assumptions or estimates that companies did disclose were aligned with achieving these targets, goals or ambitions. As noted for Metric 1c, the lack of inputs that align with these targets (or indeed the lack of transparency around the relevant quantitative information that companies have used) suggests that these companies may not have a plan to achieve such targets.

4.3.2: Metric 3b: Alignment with drive to net zero – Audit reports

Most auditors are not testing against net zero, but the few that are demonstrate feasibility

As we set out in more detail in Appendix 1, auditors can achieve this metric by testing the company's inputs or sensitivities (if performed) for alignment with the drive to net zero. Alternatively, auditors can perform their own sensitivity to assumptions/estimates aligned with this drive. Of 134 audit reports, only three (PwC, EY and Deloitte for their audits of Eni, Equinor and Glencore, respectively) met this metric by assessing the companies' sensitivities as follows:

- PwC verified Eni's sensitivity to achieving the drive to net zero (see Figure 27);
- EY used the IEA NZE scenario to evaluate the sensitivity analyses related to Equinor's carbon and commodity price forecasts; and
- Deloitte challenged Glencore's management that the sensitivities did further indicate impairments and determined that the sensitivity disclosures in the notes were appropriate in the face of climate.

Figure 27: An example of a Yes score for Metric 3b – PwC's audit report on Eni

> The assumptions that Eni used in the preparation of its financial statements were not aligned with achieving the drive to net zero. However, Eni also performed a sensitivity of its oil and gas CGU value in use impairment assessments to using IEA NZE commodity and CO2 prices. Its auditor, PwC, noted that it verified Eni's sensitivity analysis. While PwC met the requirements of this metric, in the future, we would also expect at least an assessment of the timing of decommissioning obligations to these inputs as part of this sensitivity.
>
> For more examples see Appendix 4.

Investors, many of which are also now part of GFANZ, have asked auditors to assess companies' alignment with this drive. Further, auditors have committed to supporting this drive as signatories to the NZFSPA (the *commitments for which* appear to extend across all the services that they provide).[76] In the light of this, and that investors have been asking for this information since 2020, we anticipated that more auditors would start to perform their own sensitivities as part of meeting their NZFSPA commitments. However, the small number of "Yes" results for Metric 3b suggest that this is not the case. Going forward, we expect a greater number of auditors to address whether companies' inputs are aligned with this drive, or to perform their own sensitivities thereto.

76 For example, "...subject to any legal, regulatory, professional standards and professional or ethical obligations that apply to them." Additionally, the list of commitments by service provider specifies when a commitment may not apply to that type of service provider.

Auditors and the Net Zero Financial Service Providers Alliance

Launched in 2021, the NZFSPA counts the six largest global accounting firms (BDO, Deloitte, EY, Grant Thornton, KPMG and PwC) amongst its founding members. The NZFSPA itself is a member of GFANZ. Among other things, NZFSPA signatories have committed to support the global goal to achieve net zero emissions by 2050 (or sooner), and a temperature pathway of no more than 1.5°C. As part of this, it appears that auditors should be addressing investor requests to assess companies' alignments with the drive to net zero, particularly as part of the following commitments:

- Commitment #1: "Align all relevant services and products to achieve net zero greenhouse gas emissions by 2050 or sooner, scaling and mainstreaming Paris Agreement-alignment into the core of our business." For auditors, this entails "...perform[ing] audits in accordance with professional standards and related guidance issued by standard setters, including as they relate to climate-related matters, and commit[ing] to discharging obligations under professional standards as external auditors with quality, integrity, and independence."
- Commitment #2: "Build internal capability to understand the risks and opportunities of the net zero transition using best-practice net zero methodologies where they exist and, where methodologies or data are missing, proactively and collaboratively work to address those gaps."
- Commitment #6: "Work to ensure our relevant services and products take into account the best available climate science, including credible emissions reduction pathways to net zero. Support innovation and prioritise our efforts where we have, or can have, the most significant impact. Support the development of products and services supporting the net zero transition."

See full set of commitments at: *Commitment - Net Zero Financial Service Providers Alliance (netzeroserviceproviders.com)*

05

Recommendations

We have seen some progress in company and auditor transparency since the prior year- but more needs to be done, and quickly. The urgency of the need to address these issues is underscored by the social and economic impacts of recent extreme geopolitical and weather events. Markets need information about the financial impacts of climate on carbon-exposed companies to facilitate an efficient and effective transition to a low carbon global economy, or to understand the impacts of not transitioning. The failure to provide adequate transparency about the treatment of climate issues:

- Continues to raise concerns about whether companies and auditors are following the relevant requirements;
- Disregards that a significant group of investors continue to ask for this information;
- Means it is unlikely that investors are receiving all relevant information about the financial consequences of climate matters on a company's results and financial position;
- Reduces an investor's ability to make relevant investment, engagement and voting decisions; and
- Limits the ability of investors to allocate capital in accordance with their objectives[77] such as achieving net zero in accordance with their GFANZ commitments.

Our recommendations reflect our view that companies, auditors, market regulators, policymakers and investors all have roles to play in improving the content and quality of financial reporting of climate matters.

Companies should disclose whether and how they incorporated material climate-related matters into their financial statements and ensure appropriate governance and board oversight thereof.

As part of this, companies need to:

- Improve their climate governance over these matters, and incorporate them into internal control and risk management systems;
- Clearly indicate how they have incorporated the financial impacts of material climate-related risks and their own commitments, as relevant, into the financial statements, or if not, why they have not;[78]
- Disclose, in the notes, the quantitative climate-related assumptions and estimates that they used;
- Clearly and fully explain any significant differences across their climate-related reporting;
- Consider investor requests to use inputs that are aligned with achieving the 'drive to net zero' or, explain why inputs are not aligned with this drive and provide relevant sensitivities; and
- Ensure that their audit committees (or the equivalent) appropriately take the financial impacts of climate matters into account. This includes by:
    - Exercising appropriate oversight over such matters (including ensuring adequate interaction with external auditors) for the relevant financial reporting year;

77 For example, as part of investors' own risk management policies, stakeholder expectations (such as demands from pension clients) and their own climate commitments.

78 This includes explaining the resulting quantitative and/or qualitative results (e.g., dollar impacts on the relevant line items and/or whether assumptions or estimates used increased or declined, respectively). If there was no impact or management did not consider the impact to be material, clearly explain how it came to this conclusion.

- Interacting with the board committees responsible for developing and overseeing execution of climate plans and targets;
- Engaging with investors to ensure that the audit and financial statements are fit for purpose;[79]
- Requesting that auditors use their own or independent specialists, as appropriate; and
- Conditioning reappointment on meeting these expectations.

Auditors must provide full transparency around whether and how they addressed climate-related matters in their audits and investor requests to assess company alignment with achieving the drive to net zero, especially considering their commitments as NZFSPA signatories.

As part of this, auditors need to:

- Provide evidence of how they addressed the financial impacts of climate-related issues, including scrutinising and using professional scepticism in evaluating management's inputs;
- Ensure that companies disclose the quantitative climate-related assumptions and estimates used, particularly those identified as subject to significant judgment and uncertainty;
- Ensure that company financial statements are not inconsistent with other disclosures which may extend beyond annual filings;
- Develop network-wide policies to consistently address these issues;
- Encourage companies to meet investor demands for using assumptions or providing sensitivities aligned with achieving net zero by 2050 or sooner and no more than 1.5°C warming, examine and comment on these disclosures, and/or provide their own sensitivities thereto;
- Issue a robust and informative audit report that enhances investor understanding of the quality of the company's financial results and position and their audits; and
- As part of their NZFSPA commitments, make clear how they will address climate risks, including investor demands for alignment with the drive to net zero, in financial reporting, and modify their commitments to address these items.

Market regulators should identify whether companies have incorporated material climate-related matters in their financial statements (and provided adequate disclosure thereof). They should look for reporting inconsistencies, identify audit failures,[80] and take action to enforce financial reporting and audit standards.

As part of this, regulators should:

- Increase focus on ensuring consistency between company narrative reporting and the financial statements;
- Expand the definition of 'other information' for audit consistency checks to ensure the inclusion of

79 See also https://valueedgeadvisors.com/2018/07/25/comment-letter-on-iosco-consultation-report-on-audit-committee-good-practices-from-samantha-ross/.

80 Current standards already set expectations beyond what most companies (and auditors) are delivering. However additional steps by regulators such as the PCAOB, including providing clarifications similar to the IAASB's staff guidance, publishing additional guidance on auditing assumptions, the use of specialists and considerations of other information as part of auditor risk assessments, may help facilitate the requisite increase in transparency and consideration of climate matters in financial statements.

climate-related disclosures in documents such as sustainability or climate reports;

- Ensure that a company's sustainability reporting or the equivalent connects back to the company's financial reporting;
- Clearly signal the inclusion of these matters in oversight and enforcement reviews for FY2022/23 company reporting (and beyond, as necessary); and
- Take further action in instances of non-compliance with requirements for financial statements and audits thereof.

Governments and policymakers must prioritise these matters and ensure that information in the financial statements is consistent with other sustainability information that companies report.

To further drive change, governments and policymakers should:

- Support the need for market regulators to enforce appropriate disclosures in financial reporting and auditor assessments thereof;
- Increase education and awareness within the climate change policy community about the importance of integrating the impacts of climate into financial statements; and
- Facilitate participation in stakeholder initiatives to drive necessary change at a value-chain level.

Investors should use the results of this study to help inform engagement, voting and investment decisions.

Investors are a key lever of change. They have a stewardship responsibility to address risks in investee companies and, more generally, in financial markets.[81] Accordingly, investors should:

- Engage with companies and establish expectations of disclosures around climate-related matters for FY2022/23 financial statements and the 2023 proxy season (and on an ongoing basis);
- Work to ensure proper governance of these issues through communication with audit committees or others in charge of oversight, including developing expectations for Audit Committee Chairs;
- Communicate expectations to auditors, directly and via proxy voting;
- Integrate climate-reporting expectations, including for asset managers, into proxy voting policies and highlight escalation strategies in the absence of consideration and oversight thereof;
- Engage with proxy advisors about their needs for companies to consider climate risks in financial reporting; and
- Reassess the size of stewardship teams and train them on accounting and auditing issues.[82]

81 For example, the 2020 UK Stewardship Code expects signatories to report on items such as how they have "identified and responded to market-wide and systemic risk(s), as appropriate".

82 By way of example, the UK Stewardship Code expects signatories to report how "their governance structures and processes have enabled oversight and accountability for promoting effective stewardship…"and how "they have appropriately resourced stewardship".

06

Appendix 1 – Approach to reviews and scoring

In FB 1.0, we discussed the accounting and audit standard setter clarifications about addressing climate matters. We indicated that global audit firms responded to the accounting clarifications via a December 2020 *GPPC letter*[83] to the Chair and Vice Chair of the IASB. In the letter, the GPPC stated that each network firm would communicate the discussions about addressing climate matters internally and engage with stakeholders to "encourage greater transparency on the impact of climate-related matters on companies' financial statements." We also highlighted investor requests that management and their auditors ensure that material climate matters are incorporated into the financials.[84]

1.1 Approach to reviews-CAAA methodology

Similar to FB 1.0, for this study Carbon Tracker and CAAP conducted a comprehensive desktop review of company reports, with a focus on the financial statements and audit reports in annual reports or filings.[85] We looked for other climate-related information in filings published before or around the same time as the audited financial statements (e.g., management reports, risks factors, MD&A, sustainability, climate or TCFD reports, websites, CDP reports, and proxy statements). When available, we reviewed such information to establish a basis for assessing consistency and to provide a context for the information in the related financials.

Our reviews considered the relevant accounting and auditing standards and investor concerns. Based on the carbon-intensive nature of these companies and/or their role in the energy transition, we expected climate-related matters to be material. Accordingly, we looked for evidence, by way of disclosures, that companies and their auditors had considered climate as might be expected under the relevant requirements, and that they had responded to specific investor requests to align assumptions with the drive to net zero (or perform and disclose sensitivities thereto). We did not assess the quality of company or auditor actions.

Methodology

We used the new (provisional) CAAA methodology to assess the company financial statements (and the related audit reports).[86] In accordance with this methodology, for each company we assessed three focus areas (Sub-indicators) by asking seven questions (each of which correspond to a Metric); these are largely a formalised version of the approach taken in FB 1.0. Each metric is intended to build on the previous and in this way leads to the relevant sub-indicator (and finally overall) score. See Figure 28.

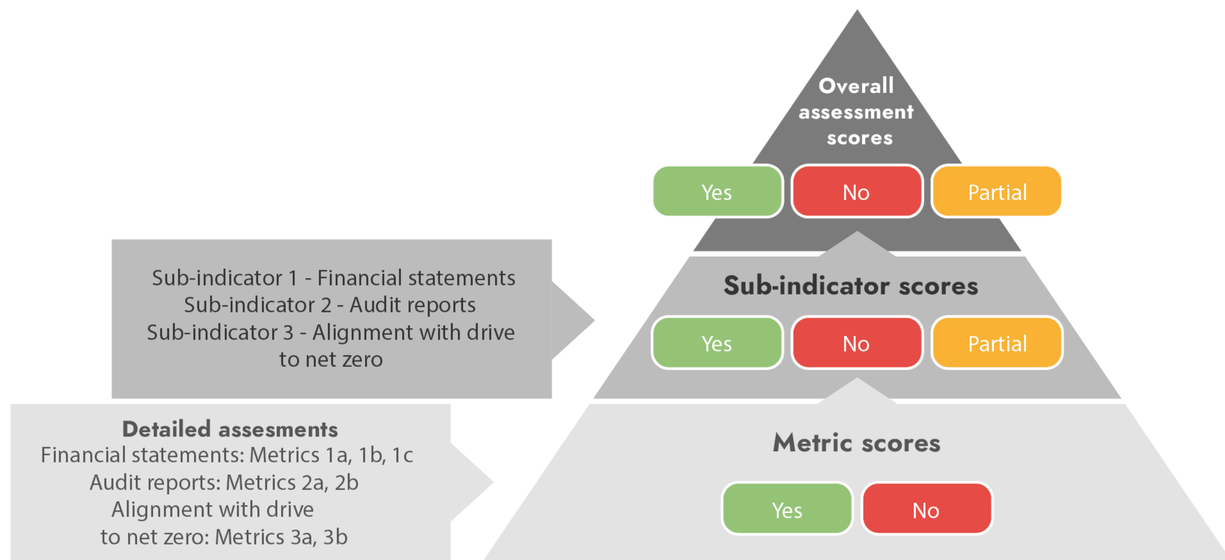
83 The Global Public Policy Committee is comprised of senior representatives from the six large global accounting firms. It participates in global public policy matters, has an objective of enhancing confidence in the audit profession, and is a forum for communication with regulators and stakeholders.

84 Investor groups call on companies to reflect climate-related risks in financial reporting; https://www.iigcc.org/news/leading-investors-call-on-europes-largest-companies-to-address-missing-climate-change-costs-in-financial-accounts/.

85 The individuals that supervised or performed these reviews have financial market experience; some previously worked as accountants, auditors, analysts and/or investors. We focused on the local market annual reports, when available.

86 See https://www.climateaction100.org/wp-content/uploads/2021/11/CA100-CTI_CAP-Accounting-and-Audit-Indicator-methodology-Nov-21.pdf

Figure 28: The Climate Action 100+ CAAA scoring system



Source: Carbon Tracker graphic

Under the Climate Action 100+ methodology, Sub-indicators are the components of the overall assessment and divide it into specific "areas of interest". Metrics are the components used to assess each Sub-indicator. Each Metric is assessed with a binary "Yes"/ "No". The scores are aggregated as follows:

- Yes = When all Metrics for a Sub-indicator or the Overall assessment are "Yes".
- No = When all Metrics for a Sub-indicator or the Overall assessment are "No".
- Partial = All other combinations of Metrics individually assessed as "Yes" or "No."[87]

Assessment against CAAA methodology

The three Sub-indicators and the seven metrics supporting them (and which were used to perform our assessments) are listed below. In this section, we explain how we assessed against each of the seven metrics.

Financial statements (Sub-indicator 1): The audited financial statements and notes thereto incorporate material climate-related matters.

1. The financial statements demonstrate how material climate-related matters are incorporated (Metric 1a).
2. The financial statements disclose the quantitative climate-related assumptions and estimates (Metric 1b).
3. The financial statements are consistent with the company's other reporting (Metric 1c).

87 For further information and the complete methodology see: https://www.climateaction100.org/wp-content/uploads/2021/11/CA100-CTI_CAP-Accounting-and-Audit-Indicator-methodology-Nov-21.pdf.

Audit reports (Sub-indicator 2): The audit report demonstrates that the auditor considered the effects of material climate-related matters in its audit.

4. The audit report identifies how the auditor has assessed material impacts of climate-related matters (Metric 2a).

5. The audit report identifies inconsistencies between the financial statements and 'other information' (Metric 2b).

Alignment with the drive to net zero (or sooner) (Sub-indicator 3): The audited financial statements and notes thereto incorporate the material impacts of the global drive to net zero greenhouse gas (GHG) emissions by 2050 (or sooner) which for the purpose of this assessment is considered to be equivalent to achieving the Paris Agreement goal of limiting global warming to no more than 1.5°C.

6. The financial statements use, or disclose a sensitivity to, assumptions and estimates that are aligned with achieving net zero GHG emissions by 2050 (or sooner) (Metric 3a).

7. The audit report identifies that the assumptions and estimates that the company used were aligned with achieving net zero GHG emissions by 2050 (or sooner) or provides a sensitivity analysis on the potential implications (Metric 3b).

As noted in FB 1.0, accounting or auditing standards already require the information that we looked for when reviewing information to assess the Sub-indicators for financial statements and audit reports. In addition, investors have requested incorporation of assumptions or disclosure of sensitivities to a net zero scenario. If management is aligning its business model with net zero, existing standards would require financial statements to be inconsistent with this.

Approach to Sub-indicator 1: Financial statements

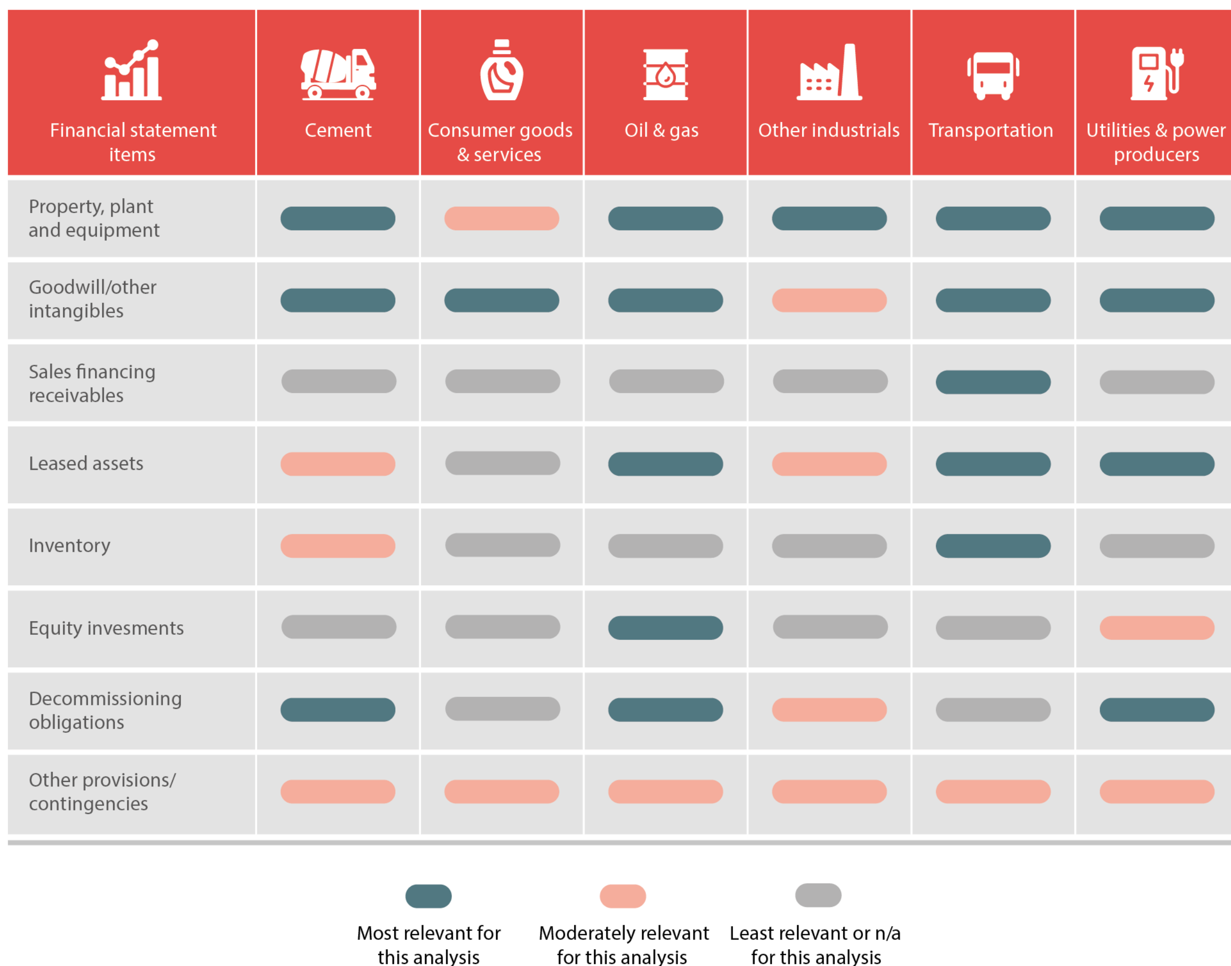
Metric 1a: The financial statements demonstrate how material climate-related matters are incorporated.

To determine the level of capital at risk and undertake their stewardship responsibilities, such as engagement and voting, investors need to understand whether, and how, the company has considered the impacts of climate when making significant judgements and estimates in preparing the financials. This includes the ways in which the company has considered these issues, and the impacts of these considerations (explained either qualitatively or quantitatively) on the company's financial statements. Without this information, it is not clear to investors whether or how climate considerations impacted the assumptions and estimates used to prepare the financials, such as, but not limited to, the forecasted expected cash flows used in impairment testing, the estimated remaining useful lives of productive assets, the timing of decommissioning obligations or provisions for onerous contracts.

When assessing reports for this metric, we applied the criteria in the CAAA methodology to determine whether the company considered the impacts of climate in the accounting for material relevant financial statement items. We considered the sector in which the company operates. We looked at its financial statements and other reporting, when necessary, to understand the nature and materiality of the company's assets, liabilities and transactions that could be affected by climate-related matters as well as the company's own discussions about which items could be impacted (and how, if provided). We considered the inputs that management would use when accounting for such items and how they can be materially impacted by climate-related matters.

Table 2 provides a heatmap of the financial statement items that would most likely be impacted by material climate-related matters for the sectors covered by our review. We also looked at topics that may be less sector-specific, such as the recovery of deferred tax assets. Note that the table is not intended to provide an exhaustive list of items.

Table 2: Financial statement items most relevant to our analyses by sector[88]



Source: Carbon Tracker graphic

After identifying the relevant items, we looked for discussions, such as in significant accounting policies or topic-specific notes, to see if the company clearly identified the material relevant assets, liabilities, and/or cash flows considered, the related accounting issues and judgements made, and the outcome of the consideration for the reporting period (such as a change in asset lives or an accounting adjustment); and provide a comprehensive description of how the financial impacts of climate were considered as appropriate for the company. For example, did it consider the impacts of climate matters on projected commodity prices or margins, production estimates, estimated remaining asset lives and/or residual values, as relevant, for material carbon-intensive assets or assets that produced carbon-intensive products? If so, what was the result (e.g., did it lead to projected declines in the long-term prices in impairment testing and an impairment charge)? Examples included, but were not limited to, the following:

88 Note that for the automotive sector, Carbon Tracker plans to further research impacts on Auto Loans and Asset Backed Securities, including the impact of collateral residual value.

- Whether and how the company considered the impacts of climate (such as changing consumer preferences (e.g., using more public transportation or less air travel), regulations to phase out company products (such as coal or internal combustion engines or ICE), customers' inabilities to pay if impacted by climate, declines in demand, and/or the need to abate emissions) in the financials? What were the results of such considerations? Did they result in lower projected commodity prices, lower expected margins, shorter remaining useful lives, lower residual/ collateral values and/or lower estimates of future production?
- Whether and how machinery used to manufacture ICE cars could be reasonably repurposed to manufacture electric powered engines or batteries? Did the company consider relevant impacts when accounting for these assets? If not, why not? What was the estimated impact on declining resale values, or residual values, that are guaranteed by the company, or for assets that form the collateral for the relevant receivables, particularly when impacted by technological obsolescence (e.g., electric vehicles)?
- Did the company consider the projected costs of carbon capture or emissions credits as part of reducing emissions due to regulatory requirements or in order to meet its own targets when testing relevant assets for impairments? Did this contribute to or result in additional impairments?
- Did the company consider whether emissions reductions as a result of regulations or the company's own interim and long-term targets meant shorter remaining useful asset lives or less units of production? If assets were to be retired early, would decommissioning obligations be accelerated? Did it need to recognise additional decommissioning obligations, such as for refining assets? If not, why not?
- Did the company examine whether the effects of the energy transition, such as declining prices and disruptive technologies, would result in onerous contracts?
- Will the company's ability to recover tax loss carryforwards via future profits be impacted by climate-matters, particularly if the company has already included material impacts on the estimated future cash flows that it used to test for impairment of intangible assets or property plant and equipment? If not, why not?

Note: as per the methodology we looked for evidence of consideration across related items, such as shortened asset lives of PPE assets, impairments of those assets and the timing of related retirement obligations. For example, did the timeframe over which the company calculated its decommissioning provisions correspond with the remaining useful lives of the related assets, the timing of changing legislation and/or achieving company targets? If not, why not?

A generic statement that the company has considered climate is not sufficient to achieve this metric. If the company stated that climate would or did not have a material impact, we looked for an explanation as to why, and how it determined this.

Rate regulated activities: As in FB1.0, we noted that utilities that have rate-regulated activities may be allowed to recover the costs of impairing assets, or shortening the related lives, via a 'regulatory asset' authorised by the regulator. In this way, their financial results may not be affected by climate in the same way as non-rate-regulated entities. Where this is the case, the risk is more related to regulatory disallowance of costs associated with the continued operation of fossil assets; it is not directly from market changes but indirectly, through rate-regulators deciding to allocate losses to the company

rather than the rate-payer. Consequently, when assessing organisations that had material rate-regulated businesses (and related fossil-fuel assets), we looked for statements about assessments of allowability of losses as a measure of whether they have considered "climate-related risks".

We appreciate that climate can form part of the considerations of items that impact the financials and the relevant inputs. For example, demand can be impacted by several factors. As noted above, we looked at whether the company indicated how climate-matters were considered and formed part of that impact. For example, wording such as the below would provide evidence for both Metrics 1a and 1b:

> *Declining demand for internal combustion engine vehicles was considered together with other influences impacting sales volume assumptions, including xyz. Together these are incorporated in the assumption that sales volumes decline in linear fashion at x% per annum from 2025.*

Metric 1b: The financial statements disclose the quantitative climate-related assumptions and estimates.

Insight into the quantitative (e.g., dollar or numerical) amounts of the climate-sensitive accounting assumptions used in preparing the financial statements provides context to the amounts reported within them and a starting point for understanding the extent to which the company has considered the impacts of climate-related risks and its potential resilience to the energy transition. It also provides insight into a company's governance over, and views of, the impacts of the energy transition.

To assess whether this metric is met in accordance with the methodology, we read the descriptions of significant judgements and estimates that the company used in preparing its financial statements. We again applied a sector lens to further determine which inputs (assumptions and estimates) can be materially impacted by climate matters, particularly for the items we assessed in Metric 1a. We then looked to see if the company disclosed the quantitative climate-related assumptions and estimates that it used in its financial statements. The assumptions that were disclosed should be sufficiently comprehensive to provide a meaningful picture of climate-exposed amounts, in the context of the company's climate risks, emissions targets and strategy. We also looked to see if it was clear how the assumptions and estimates can be understood in the context of the associated accounting amounts; their use concerning reported asset, liability, and earnings amounts should be made clear.

Importantly, this Metric is assessed independently from Metric 1a on how the company has considered climate matters. Accordingly, the scores for this metric are not reliant on whether the company adjusted the relevant input for the impacts of climate; disclosure of the relevant quantitative inputs alone provides investors with the requisite information and is sufficient to achieve this metric. Inputs could be in the form of:

- Projected long-term oil, gas or coal prices, carbon prices, estimated costs of carbon capture and storage, estimated levels of production or demand, estimated margins, and/or growth rates - used in estimated forecast cash flows for impairment tests,
- Remaining estimated asset lives or units of production, and/or
- Discount rates, the estimated weighted average timeframe and the undiscounted estimated costs used to calculate decommissioning liabilities.

The above list is not exhaustive. Equally, these inputs will not apply to all companies in the same way or may not apply to all sectors. We also looked for disaggregation of relevant amounts, including, but not limited to:

- The carrying amounts of PPE by relevant carbon-intensive operations, segments and/or locations, as well as relevant estimated costs to decommission such PPE;
- The carrying amounts of goodwill and other intangibles by nature, particularly those associated with climate-exposed businesses/segments; and/or
- the lessor's carrying amounts that are expected to be recovered through the sale of fossil fuel powered assets at the end of lease, or the estimated finance receivable collateral values backed by ICE vehicles.

Rate-regulated activities: As noted in Metric 1a, utilities that have rate-regulated activities may be allowed to recover the costs of impairing assets, or shortening the related lives, via a 'regulatory asset' by the regulator.

Accordingly, when assessing for Metric 1b, we looked for disclosures of remaining useful lives of fossil-fuel-related assets, disaggregated to a reasonable level, related to these activities. Understanding the planned retirement date for such assets is key to assessing the potential that such companies can change/will contribute to reducing emissions in the face of climate change. If the company had only rate-regulated activities (or if the majority or all of its fossil fuel assets were rate-regulated), this was the primary item that we looked for when assessing for Metric 1b.

Metric 1c: The financial statements are consistent with the company's other reporting.

Topics that companies discuss in their 'other reporting' have the potential to impact the values of assets and liabilities and so reported profitability. Inconsistencies across a company's reporting could mean a material misstatement in the financial statements, the company's other reporting, or both, and that a company's stated climate ambitions are merely greenwashing.

Under the CAAA methodology, to be assessed as 'Yes' for this metric, the company must have been assessed as not for Metric 1a. In this way, companies are unable to achieve a "Yes" for this metric if they consistently limited or omitted discussions and considerations of climate across their reporting.[89]

This metric builds on the assessment of Metric 1a, to ensure that the financial statements also adequately reflect the climate-related risks and emissions targets stated in other reporting, and so appear to present a consistent narrative. Other reporting includes other sections of the annual report (or similar filing) and may also include separate reporting such as in a sustainability report, TCFD reporting, analyst presentations, and on the company's website.

If the company scored "Yes" for Metric 1a, we then looked for discussions of climate-related risks, strategies and/or commitments in its other reporting 'outside' of the financial statements. This included statements made in other sections of its annual report as well as in sustainability, climate or other types of reports produced by the company around the same time as the annual report or relevant filing. If no documents other than audited financial statements were available, we looked at statements made on the company's website. If the company considered inconsistencies between its other reporting on climate risks and emissions targets and the financial statements to be immaterial or had a reason for

89 Of which we saw examples in FB 1.0.

using different assumptions or estimates outside versus within the financial statements, it is expected to disclose this conclusion and the basis for it.

For example:

- If the company discussed climate risks, such as changes to regulation, reduced demand for its products or changes to its product mix in its other reporting, did it also consider the impacts of these risks on estimates of projected demand, production, or costs used for impairment testing, the timing of useful lives of relevant assets or for other assumptions used to value those assets?
- If the company had emissions reduction targets, including interim targets, did it appear to consider the impacts of achieving such targets on the remaining estimated useful lives of its long-lived high emissions assets?
- Did the company use the same investment and planning assumptions cited in other reporting? If not, did it explain its reasoning?

Where a company highlights inconsistencies related to an incomplete consideration of climate matters in the financial statements, this may provide useful insight, but it is not sufficient to achieve a "Yes" for this metric.

Approach to Sub-indicator 2: Audit reports

Metric 2a: The audit report identifies how the auditor has assessed the material impacts of climate-related matters.

Investors need to understand whether and how auditors have independently assessed the company's consideration of climate-related matters, including as part of their risk assessment and testing. Robust audit reports may enhance investor confidence in the quality of both the audit and the company's financial reporting. Without this information, investors do not have insight into whether the impacts of climate on the financial statements are going unchecked and if auditors are providing the requisite of level of assurance.

As part of their financial statement audits, auditors are required to identify matters that are subject to significant judgement and estimation uncertainty (and so more susceptible to risk of material misstatement). The uncertain nature of climate-related matters make them particularly relevant here.

This metric is based on the expectation that for CA100+ companies, climate matters will be material and subject to significant judgments and uncertainties, and accordingly, they will be included within the auditor's disclosure of Key or Critical Audit Matters (K/CAMs) as applicable under the International/ US auditing standards, respectively. Discussions may either be in a separate climate-related K/CAM or those focusing on specific accounting topics.

For this metric to be "Yes", the auditor's K/CAMs should be comprehensive in addressing accounting topics sensitive to climate-related judgements and uncertainties.

If the auditor considers the risk in relation to the financial reporting to not require reporting in the K/ CAMs, this metric may be achieved through reporting of how climate was considered in assessing risk and determining the audit approach.

Accordingly, we first looked to see if the matters that the auditor identified KAMs for ISA audits, or CAMs for audits performed in accordance with PCAOB audit standards, were for items, such as those identified for Metric 1a, that would be impacted by climate. We then looked for discussions of how the auditor assessed the impacts of climate when testing those matters. The auditor may have provided a separate discussion or audit matter on climate or energy-related issues,[90] or if auditors discussed climate-related matters in their overview of audit planning (if included in the audit report). As part of our analyses, we looked at whether the auditors:

- Clearly identified the material climate-related issues (such as but not limited to the company's own transition plan, impacts of regulations, changes to demand or disruptive technologies) that they had considered during the audit; and
- Discussed the work and testing performed, including non-generic discussions about how auditors were able to gain comfort with the treatment of climate-related matters in the company's financial statements. For example, we looked to understand how, in the light of climate risks and/or relevant company targets, the auditor determined that the impacts that the company considered for the relevant financial items were appropriate. This may have included challenging the estimates, assumptions, and disclosures thereof that the company used in preparing the financial statements and/or indicating the scenarios, or types of scenarios, they used as its reference point for assessing climate impacts (as relevant).

If auditors did not appear to address material climate-related items that we identified in the financials, we looked to see if there was an explanation outside of the audit matters.

Additionally, both ISAs and PCAOB standards note that if expertise beyond accounting is necessary to obtain sufficient audit evidence, auditors are required to determine whether they need to use outside experts to assess the impacts of climate on the audit of key or critical matters. Accordingly, we looked at whether the auditor used independent experts (e.g., experts hired by the auditors or working as part of the audit team) in performing its assessments of material climate-related issues. This is particularly relevant for US audits in the light of the PCAOB's 2022 interim analysis to *"evaluate the initial impact of new requirements for auditing accounting estimates and using the work of specialists"*.[91]

90 No auditor included a separate CAM on climate in its PCAOB audit report.
91 See also: Carbon Tracker and Ceres' joint comment letter on this consultation.

Figure 29: KAMs vs CAMs

KAMs are identified in audits performed using ISAs and are matters which were of most significance in the audit of the financial statements for that period.[92] They are selected from the matters communicated with those charged with governance, taking account of areas that involve high risk of misstatement or significant risks, that require significant judgements (or involve high estimation uncertainty), and/or the effect on the audit of significant events or transactions occurring in the period.

CAMs are identified when using PCAOB standards. They are matters which were material, communicated to the audit committee, and involved especially challenging, subjective, or complex auditor judgements.[93] Similar to KAMs, a CAM "may not necessarily relate to a single account or disclosure, but could have a pervasive effect on the financial statements if it relates to many accounts or disclosures".[94]

Metric 2b: The audit report identifies inconsistencies between the financial statements and 'other information'.

Auditors are required to check for inconsistencies between the company's financials and its other information; by disclosing the results of these checks they are providing investors with an independent view. As noted for Metric 1c, an inconsistency could mislead investors and mean a material misstatement of information in the financials statements, the company's other reporting, or both.

Under the CAAA methodology, if Metric 1c is assessed as "Yes" because the company appears to present a consistent narrative across its reporting, this metric will likely result in a 'Yes' for the auditor.

If Metric 1c is assessed as "No" and:

- the information that is inconsistent is in the company's other reporting that is subject to the consistency review by the auditor, then this metric can still be "Yes" if the auditor has drawn attention to the discrepancy; if it has not, this metric will be "No"; or
- the information that is inconsistent is in the company's other reporting that is outside the scope of the auditor's consistency review, this Metric will likely be assessed as "Yes".

Accordingly, to assess reporting against this metric, we looked to see if any inconsistencies that we observed when reviewing information relating to Metric 1c were within the documents that the auditor is required to read for consistency.[95] If so, we looked at the audit report to see if the auditor also noted these inconsistencies. In this way we also compared our assessment of company reporting consistency with the auditor's assessment, keeping in mind the more limited scope of the auditor's consistency check under the relevant auditing standards.

92 ISA 701: Communicating Key Audit Matters in the Independent Auditor's Report.

93 AS 310: The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion.

94 See https://pcaobus.org/Standards/Documents/Implementation-of-Critical-Audit-Matters-The-Basics.pdf.

95 The definition of 'other information' varies slightly ISAs and PCAOB auditing standards. PCAOB requirements generally limit this to information in the same filing as the financials. By contrast, the IAASB appears to take a broader approach. In its October 2020 audit practice alert the IAASB staff indicated that "it may be important to determine whether the document containing the climate-related information nevertheless forms part of the annual report .... An example of a document which is not always part of the Annual Report is a Sustainability Report, which some jurisdictions are seeing an increase in entities issuing."

PCAOB audit reports were generally silent on the outcome of their consistency review. As part of assessing whether the auditor appropriately highlighted inconsistencies, we have interpreted the lack of mention in PCAOB reports as implying that no material inconsistency was identified in the other information within the filing document. For checks performed under the ISAs, the auditors typically specified the scope of the 'other information' that was read for this purpose, and usually provided a conclusion – generally that they had nothing to report.

Approach to Sub-indicator 3: Alignment with drive to net zero

Metric 3a: The financial statements use, or disclose a sensitivity to, assumptions and estimates that are aligned with achieving net zero by 2050 (or sooner and no more than 1.5°C warming).

Investors need to understand whether a company (and so the investor's capital) is resilient in the face of a low-carbon transition. Equally, they want to know if a company that has announced net zero targets is using assumptions and estimates that are aligned with achieving these targets when assessing profitability and in future investment plans. This is particularly salient given the apparent rise in net zero commitments that we have observed in the past year. In the absence of inputs aligned with this drive, a sensitivity of relevant financial statement items to using such inputs can still help investors understand the extent to which uncertainty exists around the company's estimates, for example, in the face of the disruption of climate change and the energy transition.

These disclosures are also tools which investors, including GFANZ members, can use to help determine the actions needed (e.g., such as working with investee companies to wind-down high emitting assets, transition businesses and vote as appropriate) to achieve their own net zero goals. To assess against this metric, we first looked at whether the company disclosed relevant climate-related inputs:

- If so, we looked to see if the company's inputs, such as projected prices, demand or other estimates, including phasing out coal or the timing of renewable electricity generation were based on or aligned with the IEA NZE or a similar credible-climate scenario.
- If the company did not disclose the relevant inputs, or if the company stated that it did not use aligned inputs aligned with the drive to net zero in its financial statements, we looked to see if it explained why, and if it provided sensitivities to such inputs.

This Metric requires that the company either uses assumptions and estimates that are in line with a net zero by 2050 (or sooner) pathway or provides a sensitivity analysis using such assumptions and estimates. In accordance with the CAAA methodology we currently use the International Energy Agency's Net Zero Emissions by 2050 Scenario (IEA NZE) and related price deck for this assessment. We note there are other existing scenarios that be used to assess companies against this metric,[96] when appropriate; we will continue to update the reference scenario as appropriate. To assess reporting against this metric we first looked at whether the company indicated that they aligned their inputs with this drive.

96 For example, IPCC's LED/P1 scenario in Global Warming of 1.5°C. An IPCC Special Report and PRI's 1.5°C Required Policy Scenario

Metric 3b: The audit report identifies that the assumptions and estimates that the company used were aligned with net zero by 2050 or provides a sensitivity analysis on the potential implications.

Investors need to know if auditors have independently assessed and verified whether a company's inputs (or sensitivities) were aligned with achieving this drive. Auditors can also challenge "overly-optimistic assumptions", particularly in situations of significant change where "the past cannot be a guide to the future".[97] Further, as noted we believe that assessing this information, or providing their own sensitivities, form part of the commitments auditors have made as signatories to the NZFSPA (and so the GFANZ forum).

If Metric 3a is scored as "Yes", the auditor should have assessed whether the relevant assumptions and estimates used in the financial statements (or used in the company's sensitivity analysis) are 'aligned assumptions', based on the relevant reference assumptions. In doing so, the auditor should have indicated the ways in which it made the assessment, including the sources of third-party information relied upon.

If Metric 3a is assessed as "No", then for this metric to be assessed as "Yes", the auditor should have indicated what reasonably aligned and quantitative assumptions and estimates would be and provided a sensitivity analysis of relevant financial reporting amounts using those assumptions and estimates.

Accordingly, we looked to see if the auditor identified that the assumptions and estimates that the company used were aligned with achieving the drive to net zero, and how it determined this. If the company did not use such inputs but provided a sensitivity, we looked to see if the auditor assessed the sensitivity against credible climate scenarios. If the company did neither of the above, we looked at whether the auditor:

- Indicated what such assumptions would look like, if relevant;
- Performed a sensitivity to such assumptions; and
- Provided the results of the sensitivity.

1.2 Scoring system

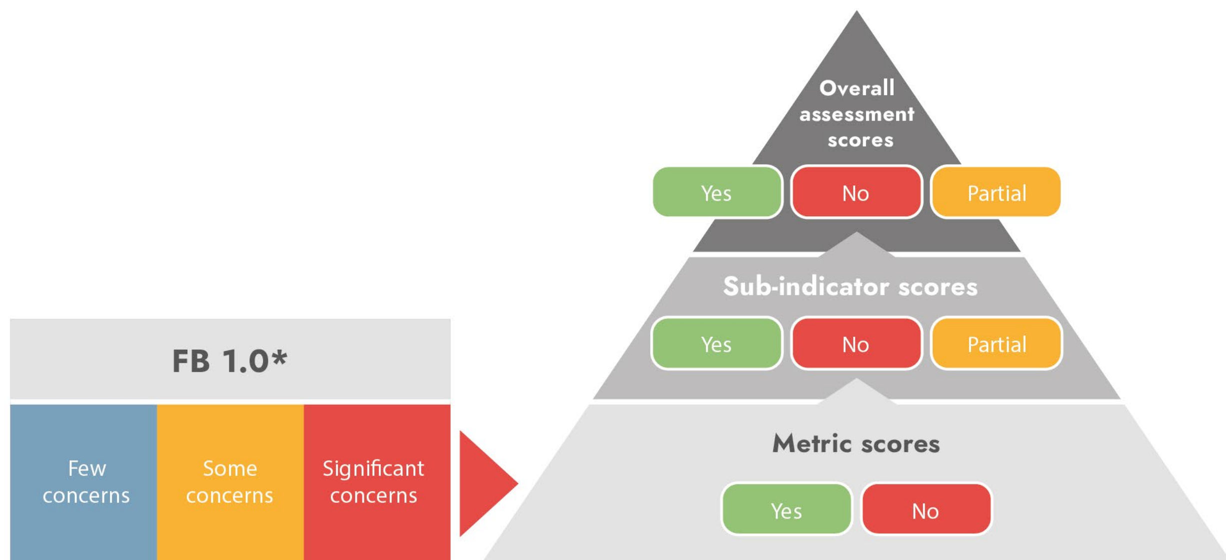
Differences from FB 1.0

In the overview section of this report, we highlighted that the CAAA binary scoring system that we used to assess companies (and auditors) for this report is stricter than the graded scoring system in "FB1.0". For example, in "FB1.0" reporting avoided a red score if it showed some level of considering climate or providing relevant disclosure. This was due to scoring that was spread over three levels, allowing some progress to move the score out of the bottom "red/significant concerns" level into an "amber/some concerns" level. By contrast, to avoid a "No" (red) score under the CAAA methodology, evidence of relatively comprehensive consideration is required.

97 IIGCC, November 2020, "Investor Expectations for Paris-aligned Accounts", https://www.iigcc.org/download/investor-expectations-for-paris-aligned-accounts/?wpdmdl=4001&masterkey=5fabc4d15595d, p. 12.

The binary scores represent a normative assessment for information that is either required by standards or requested by investors. However, a binary approach limits the extent to which the CAAA can be used to signal progress.[98] Figure 30 illustrates the different scoring systems.

Figure 30: The difference in scoring systems used by CAAA and FB 1.0



Source: Carbon Tracker graphic

Table 3 provides a summary of the differences between FB 1.0 and the work performed herein.

Table 3: Key differences between FB 1.0 and this report

Description	FB 1.0	CAAA as reflected in this report
Aggregation of scores	No aggregation of scores; scores were only provided for each the seven reporting topics assessed	Provides three levels of scores: Overall, a score for each of the three focus areas (Sub-indicators) and for each of the seven reporting topics (Metrics)
Detailed-level scoring	Three-tiered* (few concerns, some concerns, significant concerns) *technically FB1.0 included a fourth tier, 'good practice', but no company achieved this score.	Binary (yes/no)
Scope	107 companies, of which 92 were Climate Action 100+ focus companies	134 Climate Action 100+ focus companies
Reporting periods	Primarily years ended 31 December 2020 (some 31 Jan and 31 March 2021)	Primarily years ended 31 December 2021 (some 31 Jan and 31 March 2022)
Differences in assessing for consistency	Companies could achieve a rating of 'some concerns' (instead of 'significant concerns') for consistency if their discussion of climate risk and targets was limited across their reporting (without any meaningful indication they considered such matters in their financial statements).	Companies cannot achieve the consistency score (Metric 1c) if they scored a No for consideration of climate in the financials (Metric 1a). This avoids companies achieving a Yes for consistency by limiting their discussions of climate across their reporting.

Key to scores

Table 4 provides the key to the binary metric scores. The full text of the methodology can be found

98 We note that Climate Action 100+ will open a consultation on a set of proposals to enhance the Net Zero Company Benchmark for the next phase of Climate Action 100+, due to launch in mid-2023. The survey will be open until 11th November 2022. Signatories, focus companies, and other stakeholders are encouraged to take this opportunity to share their perspectives on the future of the Net Zero Company Benchmark as well as the Climate Accounting and Audit Alignment Assessment via this survey.

here.

Table 4: Metric scoring system: financial statements and audit reports

Metric score	Description
Yes, or Met	The reporting appeared to provide the criteria required by the CAAA methodology on a comprehensive basis.
No, or Not met	The reporting did not provide the criteria required by the CAAA methodology on a comprehensive basis.

Source: Carbon Tracker

The CAAA approach means that even if a company meets only one metric, the relevant Sub-indicator will be scored as "Partial", and the overall assessment can still be partially met. A company that has not achieved any metrics will not meet the sub-indicators or the overall assessment. The possible combinations of sub-indicator scores are illustrated in Figure 31, while Figure 32 provides examples of overall scores via different combinations of metrics and sub-indicator scores.

Figure 31: CAAA sub-indicator scoring system

Sub-indicator 1

a	b	c	Sub-Indicator assessment
Y	Y	Y	Y
Y	Y	N	Partial
Y	N	N	Partial
Y	N	Y	Partial
N	Y	N	Partial
N	N	N	N

Sub-indicator 2 & 3

a	b	Sub-Indicator assessment
Y	Y	Y
Y	N	Partial
N	Y	Partial
N	N	N

Source: Climate Action 100+ CAAA methodology

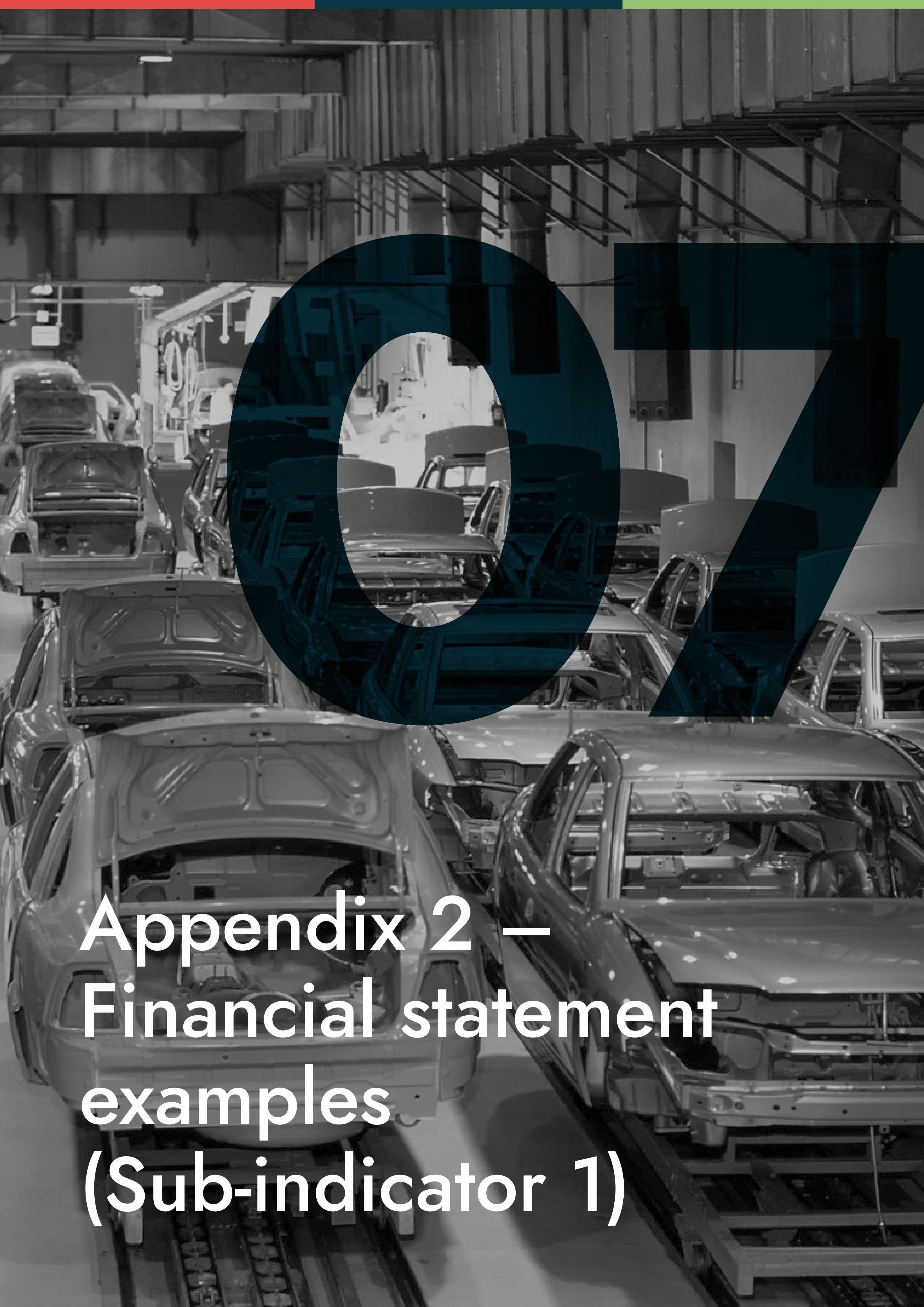
Figure 32: CAAA Approach to overall assessment score

Accounting and Audit Assessment

<table>
<tr><th>1a</th><th>1b</th><th>1c</th><th>Sub-Indicator 1</th><th>2a</th><th>2b</th><th>Sub-Indicator 2</th><th>3a</th><th>3b</th><th>Sub-Indicator 3</th><th>Overall assessment</th></tr>
<tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr>
<tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>N</td><td>P</td><td>Partial</td></tr>
<tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>N</td><td>Y</td><td>P</td><td>Partial</td></tr>
<tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td>N</td><td>N</td><td>N</td><td>Partial</td></tr>
<tr><td>Y</td><td>Y</td><td>N</td><td>P</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>Partial</td></tr>
<tr><td>Y</td><td>N</td><td>N</td><td>P</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>Partial</td></tr>
<tr><td colspan="10" rowspan="5">Note this table does not illustrate every metric combination of 'Y' or 'N'

All other combinations result in an overall assessment of 'Partial'</td><td>Partial</td></tr>
<tr><td>Partial</td></tr>
<tr><td>Partial</td></tr>
<tr><td>Partial</td></tr>
<tr><td>Partial</td></tr>
<tr><td>Y</td><td>N</td><td>N</td><td>P</td><td>Y</td><td>N</td><td>P</td><td>N</td><td>N</td><td>N</td><td>Partial</td></tr>
<tr><td>Y</td><td>Y</td><td>N</td><td>P</td><td>Y</td><td>N</td><td>P</td><td>N</td><td>N</td><td>N</td><td>Partial</td></tr>
<tr><td>N</td><td>Y</td><td>N</td><td>P</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>Partial</td></tr>
<tr><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td></tr>
</table>

Source: Climate Action 100+ CAAA methodology



07

Appendix 2 – Financial statement examples (Sub-indicator 1)

In this Appendix we provide examples of "Met" and "Not met" scores for Sub-indicator 1 that we assessed using the CAAA methodology. As noted in the discussions of results (Section 4 of this report), even if not all the information necessary to meet the requirements of the relevant metric was provided, we observed that some reports showed progress evidencing more consideration of climate in their disclosures. We have also highlighted certain of those examples herein for each metric.

2.1: Metric 1a: Financial statements - Consideration of material climate matters - Examples

Table 5: Examples of companies that evidenced comprehensive consideration of climate and met Metric 1a

bp/Oil & Gas	
Key items of note	• Discussed outcome of assessing upstream and downstream asset lives and timing of relevant decommissioning • Lowered long-term oil price assumptions used in estimating future cash flows in response to the energy transition; explained why long-term gas prices stayed constant • Included costs from future potential carbon pricing and/or carbon emissions allowances to the extent possible or applicable in value in use calculations
Metric 1a was met	bp indicated consideration of climate change and the transition to a lower carbon economy in preparing its financial statements. It explained the impact on oil and gas prices and carbon costs used to forecast cash flows for impairment testing, its assessment of remaining asset lives and the timing of decommissioning provisions. **Impairment testing** Oil & Gas prices: bp increased oil price assumptions to 2030 *"to reflect near-term supply constraints,"* (resulting in FY2021 net impairment reversals), but lowered long-term assumptions as it *"expects an acceleration of the pace of transition to a lower carbon economy."* Other than an increase in 2022 due to *"short-term market conditions"*, it did not change gas price assumptions. It stated that its revised assumptions were in line with various external scenarios and transition paths that were aligned with the temperature goal of the Paris agreement[99]. Carbon costs: bp included potential future carbon prices or costs of emissions in impairment tests to the extent applicable or possible, indicating that to date this was limited as *"carbon pricing legislation in most jurisdictions where the group has interests is not in place and there is not sufficient information available as to the relevant policy makers' future intentions regarding carbon pricing to support an estimate"*. It believed that, as forecast prices are producer prices, it would be able to pass on any such future costs and so did not expect a materially negative impact on future cash flows. **Remaining useful lives of assets and timing of decommissioning provisions** Upstream: While the energy transition may result in shorter asset lives, bp did not expect the useful lives of upstream assets asset to change since they would be fully depreciated in the next ten years. It also expected oil and gas to be an important component of its business during that time. Downstream: bp believed that the remaining useful lives of downstream assets lives (e.g., refineries) would be supported by ongoing demand for its products. Decommissioning provisions: While it acknowledged the energy transition could impact the timing of upstream asset decommissioning, due to the remaining lives of relevant assets and reserves, bp did not expect the timing to materially accelerate or estimated provisions to materially change. We noted that bp did not generally recognise provisions for decommissioning its refineries as it indicated that they currently have indeterminate settlement dates. Other: bp had material deferred tax assets for net operating loss carry forwards-the utilisation of which bp indicated were supported by its forecasts of oil and gas prices (which were subject to bp's assessment of the impacts of climate-matters). *bp Annual Report and Form 20-F 2021. See also bp Accounting Assessment.*

99 According to bp, this was "of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.".

Rio Tinto/Diversified Mining

Key items of note	• Indicated that climate change and its decarbonisation plans could trigger asset impairments • Disclosed consideration of whether there were indicators of impairment in the current year, using commodity and carbon prices based on its climate scenarios • Explained why fossil-fuel powered assets' lives / timing of closures did not significantly change in the face of climate
Metric 1a was met	**Impairment testing** Rio noted that the commodity and carbon prices that it used in its impairment testing were informed by blending its three global climate scenarios (geopolitical-led, technology-led and society-led) into a central case. It considered iron ore pricing to be less certain than copper and aluminium; iron ore prices could be impacted by the development of low-emissions steel. It also considered its plans for decarbonisation - including its focus on renewables for its Pilbara operations which involve 17 iron ore mines - when assessing whether there were indicators of asset impairments. Rio Tinto concluded that, given the Iron Ore segment's high returns, none of the three climate scenarios would result in impairments and so it did not test these assets for impairment. **Remaining useful lives of assets and timing of closure** Rio reviews asset lives/units of production annually. It updated life-of-mine plan models with longer-term cash flow projections. It noted that it would generally not be practical to early retire fossil-fuel powered assets, as it requires them as back-up. Accordingly, it did not significantly shorten asset lives or accelerate the timing of closure provisions as a result of climate change. However, it will continue to monitor developments in non-fossil fuel power generation to determine whether it will need to accelerate the depreciation of these assets in the future. *Annual Report 2021|riotinto.com. See also Rio Tinto Accounting Assessment*

Rolls Royce/Other Transportation

<table>
<tr><td>Key items of note</td><td>Considered climate scenarios on assumptions used, including carbon pricing, for recognising revenue under LT contracts, asset impairments and deferred tax assets and how it did not expect impacts on useful lives, inventory, and receivables to be significant
Explained how climate considerations could impact demand and costs across its Civil Aerospace, Defence and Power Systems segments
Indicated its considerations when modelling impacts</td></tr>
<tr><td>Metric 1a was met</td><td>Rolls Royce indicated consideration of the climate change scenario assumptions that it uses in various parts of its business when assessing revenue recognition for long-term contracts, non-current assets for impairment and recovery of deferred tax assets. Assumptions include carbon prices based on IEA NZE, "commodity price trends derived from the climate scenarios set out by the Intergovernmental Panel on Climate Change (IPCC RCP1.9), temperature rises from the (IPCC SSP1-19) scenario, and GDP information from the Oxford Economics Net Zero model." It uses carbon pricing to estimate potential impacts of future policy change on "domestic facilities" but not for the external supply chain as they remain unclear.
Rolls indicated that it includes investments required to achieve its Scope 1 and 2 emissions targets (excluding product testing/development) and product targets (net zero by 2030 for new and net zero by 2050 for all) in the forecasts that it used to prepare its financials.
It explained that while it may be protected from increased costs in the short term under customer /supplier contracts, price caps under longer term service agreements in Civil Aerospace may lead to increased costs.
It explained how its three segments may be impacted by key inputs, and how it modelled downside risk for each. For Civil Aerospace, impacts could include lower original equipment (OE) volumes, shorter in-service life (so lower aftermarket volumes) and higher costs. As the Power Systems business has a shorter lifecycle it can reassess contractual terms to reflect carbon costs. For Defence, it expects future contracts to reflect the costs of carbon.
Rolls Royce had £28.7bn in assets at year-end. Relevant items for which Rolls Royce indicated it considered the impacts of climate included intangible assets (£4.0bn), contract assets (£1.5bn), PPE, net (£3.9bn), inventories (£3.7bn), trade receivables (£5.4bn) and deferred tax assets (£2.2bn). Examples include but are not limited to the following:
It includes the potential impact of climate and other factors (including on estimated flying hours (EFHs), including a 1% increase in projected carbon costs/commodity price changes, when estimating future revenue and costs under long-term service arrangements (LTSAs). A 1% change in forecasted EFH would lead to an "in-year" impact of £6-9m (not significant). A 1% decline in customer prices or in shop visits over the contract lives would mean a revenue adjustment of £100m and £25m, respectively, in the next 12 months.
It includes a 25% probability of a "severe but plausible downside forecast in relation to the civil aviation industry" when assessing the recoverability of deferred tax assets. A 5% decline in margin in the Civil Aerospace widebody programmes or in the number of shop visits due to changes in EFHs would result in reduction of £150m; restricting pass-through of climate change costs to 90% a decline of £40m, doubling carbon costs, £110m.
Rolls Royce also determined that climate (or its own targets) would not significantly impact inventory, useful lives and trade receivables in the current year. Comparing the timing of its stock turnover (which it indicated could be longer than one year) to rates of market change, it determined not to record any additional obsolescence.

Rolls-Royce Holdings PLC Annual Report 2021</td></tr>
</table>

Source: Carbon Tracker and CAAP analyses

Table 6 includes an example of a company that indicated that it considered climate in its financials, but that did not disclose the outcomes of such considerations.

Table 6: Examples of companies that evidenced some consideration of climate (Metric 1a)

Eni	
Key items of note	• Estimated declines in oil and gas prices and "competition from electric mobility" for cash flow estimates in FY2021 impairments • Linked LT commodity prices to country decarbonisation goals /pace of energy transition and used CO_2 prices related to emission laws and regulations
Metric 1a was not met **(but company provided some indication of consideration)**	Eni's significant accounting policies note discussed how it used scenarios related to its emissions and carbon neutrality targets when determining significant assumptions and estimates, including whether to continue exploration projects, the recoverability of certain non-current assets, the estimated useful lives/residual values of fixed assets, and relevant provisions. **Impairments** In 2021 Eni wrote down €1.2bn in *"residual book values"* of refineries and joint operations in Italy/Europe as a result of a variety of factors including a decline in margins and *"competition from electric mobility"*. • It considered multiple climate-matters when assessing impairments, including linking long-term commodity price assumptions to the decarbonisation goals of relevant countries and the pace of the energy transition and expected cash outflows to comply with CO2 emissions laws and regulations (e.g., emission trading schemes) or on a voluntary basis (e.g., cash outflows related to forestry certificates acquired or produced consistent with its decarbonization strategy). • It expected long-term oil and gas prices to decline as a result of the energy transition and increasing competition from renewables, and that it included declines in prices in its impairment testing. To evidence comprehensive consideration, Eni should also indicate: • The outcome of its considerations on estimated remaining asset lives/units-of-production for its oil and gas assets, or why there was no impact. Eni noted that its *"main depreciation [and amortisation] rates were substantially unchanged from the previous year"* - but it was unclear how this included its climate considerations for material exploration and production (E&P) assets. • The extent to which Eni considered the impacts of climate-related risks on the timing of its decommissioning/restoration provisions (e.g., if they might result in earlier retirement of assets). Alternatively, if the timing of decommissioning is not entirely linked to the useful economic lives of the relevant assets, Eni should provide information about this. *Eni Annual Report on Form 20-F 2021*

Source: Carbon Tracker and CAAP analyses

Table 7— Examples of companies that provided no evidence of consideration of climate (Metric 1a)

American Airlines Group/ Airlines

<table>
<tr><td>Metric 1a was not met</td><td>Of approximately $66bn in total assets, we noted that American Airlines had significant items on the balance sheet that can be impacted by the energy transition/climate matters, including efforts to change the fuel used in airplanes, emissions regulations, and changing customer demand. These included, but were not limited to: PPE net, of $29.5bn (mostly related to Flight equipment), Operating lease right-of-use assets of $7.9bn and goodwill of $4.1bn. Despite this, it did not indicate how/whether it considered the impacts of climate-related matters (or its own emissions reduction goals) in the preparation of its financial statements.

American Airlines Group Form 10-K for the year ended December 31, 2021</td></tr>
</table>

Honda Motor Company Ltd (Honda)/Automobiles

<table>
<tr><td>Metric 1a was not met</td><td>We noted that many of the significant items in Honda's financial statements could be impacted by climate-related matters. For example, of ¥21.9tn in total assets:
• Indefinite-lived intangible assets/goodwill of could be impacted by changes in demand due to a shift to electrification or increased costs of emissions.
• Financial services receivables: Estimates of expected credit losses for financial receivables could be affected by the type and valuation of collateral.
• Leased assets: The end of term residual values of vehicles could change in the face of policies such as restrictions on ICE vehicles as well as changes to consumer demand.
• PPE, net: The recoverability and useful lives of machinery and equipment could be affected by the need to update or change machinery/ equipment to increase EV production and achieve Honda's own emission reduction targets.

Despite this, it did not indicate how/whether it considered the impacts of climate-related matters or its own goals to be carbon neutral by 2050 for all products and corporate activities (Scope 1 and 2 emissions) in the preparation of its financial statements.

Honda Motor Company Form 20-F for the year ended March 31, 2022</td></tr>
</table>

Source: Carbon Tracker and CAAP analyses

2.2: Metric 1b: Financial statements - Disclosure of quantitative climate-related assumptions and estimates - Examples

Table 8: Example of comprehensive disclosures of relevant quantitative climate-related inputs (Metric 1b)

National Grid plc/ Electric Utilities	
Key items of note	• Identified the value of assets subject to rate-regulation or price control mechanisms • Disclosed weighted average remaining useful lives for relevant assets in the face of the energy transition and how it considered some to be useful up to the end of their remaining useful lives • Disclosed growth rates for goodwill impairment testing, and estimated undiscounted amounts, timing and discount rates for decommissioning provisions
Metric 1b was met	Most of National Grid's carbon intensive businesses (and so its fossil fuel-related assets) are rate-regulated/have price control mechanisms in place. National Grid provided information disaggregated by asset carrying value, segment and geographic location. It also broke down goodwill and indefinite lived intangibles by CGU. Of total net PPE and intangibles of approximately £61bn at year-end we noted that: • £28bn related to UK distribution and transmission assets that are subject to price control mechanisms, and • £30bn related to US distribution and transmission assets that are subject to rate-regulation. Accordingly, as noted in Appendix 1, for this metric we looked for quantitative information about the remaining useful lives of fossil-fuel related assets. **Useful economic lives of assets** UK assets: National Grid indicated that, while the role of gas networks in the energy transition is uncertain, it still believes that its UK gas pipeline assets will be relevant up to the end of their useful lives (2070) - even with the elimination of greenhouse gas emissions. US assets: National Grid uses depreciation studies performed for rate proceedings to determine the weighted average UELs lives of US gas distribution assets -which are approximately 58 years; many extend beyond 2080. As the asset lives feed into regulatory recovery mechanisms, it believes that any shortened asset lives, or indeed stranded assets should be recoverable. *"While recovery is not guaranteed and is determined by regulators in the US, there are precedents for stranded asset cost recovery for US utility companies."* Other: National Grid also provided the growth rates (including terminal growth rates) for goodwill/indefinite-lived intangible impairment assessments, the estimated undiscounted amounts and discount rates for environmental-including restoration and remediation- provisions, and timing for environmental and decommissioning provisions. *National Grid Annual Report and Accounts 2022*

Source: Carbon Tracker analysis

Table 9 includes examples of companies that disclosed some but not all the relevant climate-related inputs that they used in preparing their financials.

Table 9: Examples of companies that disclosed some climate-related inputs (Metric 1b)

Eni/Oil & Gas

Key items of note	• Disclosed long-term oil and gas prices and estimated growth rate inputs used for different CGU impairment tests • Disclosed inputs used for decommissioning provisions
Metric 1b was not met (but company disclosed some inputs)	Eni disclosed many of its relevant climate-related assumptions and estimates, including: • The long-term oil and gas prices it used to test the recoverability of the oil and gas CGU; • The discount rate, estimated timing (up to 2027 annually with the rest "expected to be incurred over a fifty-year period.") and total estimated undiscounted decommissioning costs (€12.5bn) used to calculate its decommissioning provision[100]; and • The long-term cash flow growth rate (zero) and forecast period (four-years) used to test its Domestic-Foreign market CGU for impairment. Eni also disclosed that for 2050 it used *"CO2 costs projections in the EU/ETS + projections of forestry costs"*. Although Eni had material oil and gas PPE in other locations (Americas, Asia, Africa, Other areas) it did not provide the CO2 costs for other jurisdictions or indicate that there were no such costs. Further, it indicated that the forecasted cash flows in the impairment testing of the Oil & Gas CGUs included, *"the expected expenses associated with the purchase of carbon credits as part of [its] strategy to decarbonize its products/processes through the participation to forestry conservation projects"* but did not supply the estimated range of forestry costs/credits. Finally, it did not provide estimated **remaining** depreciation rates/useful lives for relevant assets. *Eni Annual Report on Form 20F 2021*

Glencore plc/Diversified Mining

Key item of note	• Disclosed various quantitative assumptions and estimates for fossil fuel business for impairment and closure provisions (e.g., long-term coal and oil prices, saleable tonnes and capacity, reserve depletion dates)
Metric was not met **(but company provided some indication)**	Glencore's fossil fuel activities include thermal and coking coal mining, oil production, oil refining, and coal marketing. It provided a variety of quantitative information per cash generating unit (CGU) for its impairment testing, including: • "Non-current capital employed", which appeared to comprise PPE, intangibles, investments in associates and other, non-current advances and loans and inventories: Thermal coal, $10.6bn; Oil E&P, $0.4bn; Coking coal, $1.8bn; and Astron Energy, $0.8bn • Long-term price assumptions for thermal coal ($67-83/t), oil ($60/bbl), and coking coal ($163/t) • Life of mine saleable tonnes for thermal coal, oil E&P and coking coal, and projected year when 50% and 80% of reserves depleted • Undiscounted amounts of closure and rehabilitation of relevant asset, with the average maturity of the provisions being 17 years for coal and oil assets. Glencore did not provide the prices that it used to assess the impacts of carbon pricing regulations (even if it estimated that most or all may be passed on to the end-consumer). While it indicated that its overall production is *"heavily weighted towards the earlier part of these mine lives and is broadly aligned with the IEA's SDS outlook for reducing coal demand"*, hence the reason for showing the 80% timing, it's unclear why it did not provide estimated timing for the entire Life of Mine or Life of Assets. *Glencore Annual Report 2021*

Source: Carbon Tracker and CAAP analyses

100 We note that a breakdown of the estimated timing of gross decommissioning payments out to fifty years would also be useful.

Table 10: Companies, by sector, that did not disclose any quantitative climate-related inputs (Metric 1b)

<table>
<tr><th colspan="2">Mercedes-Benz Group AG and Nissan Motor Company/Automobiles</th></tr>
<tr><td>Metric 1b was not met</td><td>Nissan did not disclose the relevant climate-related quantitative assumptions and estimates that it used in the financials. Mercedes-Benz did not disclose many relevant climate-related quantitative assumptions and estimates either. It only provided the rounded risk-adjusted interest rates used to discount cash flows to measure value in use. Key information omitted included:
• Carbon prices and other costs used in impairment calculations, such as estimated costs to change product mix including capex and R&D. This may impact estimated future cash flows for manufacturing PPE and consideration of impairment.
• Production estimates which were used in impairment calculations for both ICE and lower emitting vehicles.
• Residual values of leased vehicles (particularly ICE vehicles).
• Remaining useful lives of manufacturing PPE (particularly assets related to ICE vehicles).
Both companies did not provide sufficient quantitative information for investors to understand the impact of the transition on the assumptions and estimates used in the financials. For example, Mercedes is planning the complete electrification of its product range and Nissan aims for an electrification mix of more than 50% globally across the brand. However, neither company provided estimates of remaining useful lives of relevant PPE that could be affected by these targets.
Mercedes-Benz Group Annual Report 2021
Nissan Motor Co. Ltd Financial Information Report 2021</td></tr>
<tr><th colspan="2">Bumi Resources and China Shenhua Energy Company Ltd/Coal Mining</th></tr>
<tr><td>Metric 1b was not met</td><td>Beyond reporting the range of years over which it depreciates its fixed assets, Bumi Resources (Bumi), the owner of the largest coal reserves in Indonesia, provided no other climate-related quantitative assumptions or estimates that are relevant to its business. Similarly, China Shenhua Energy Company (CSEC), one of the world's largest coal mining companies, provided no relevant quantitative assumptions and estimates to be able to assess whether or how climate-related factors had been incorporated into its financial statements.
For Bumi and CSEC, critical estimates and assumptions would include:
• The companies' long-term coal price and demand/production
• Their future expectations around carbon pricing
• The remaining useful lives of its coal-related assets; and
• Quantitative information relating to its asset retirement and rehabilitation provisions.
PT Bumi Resources Tbk 2021 Annual Report
China Shenhua Energy Company Limited 2021 Annual Report</td></tr>
</table>

Source: Carbon Tracker and CAAP analyses

2.3: Metric 1c: Financial statements - Consistency with other reporting — Examples

As discussed in Section 4, no company achieved a Yes for consistency across reporting (Metric 1c). However, companies still appeared to treat discrete items consistently between their financials and their other reporting. Table 11 shows how bp was consistent across some items in its reporting (such as commodity prices used) but inconsistent in others (the estimated production amounts needed to reach its targets versus those used in impairment testing).

Table 11: Examples of a company with both consistencies and inconsistencies across its climate-related reporting (Metric 1c)

bp/Oil & Gas	
Key items noted	**Consistencies:** bp used the same oil and gas prices for investment appraisals and impairment testing. **Inconsistencies:** As in the prior year, the estimated production amounts that bp used in goodwill impairment testing were higher than the amounts needed to meet its emissions reduction targets. Although in FY2021 it added an explanation for these differences, more information is needed to make these differences understandable.
Metric 1c was not met **(but company was consistent for some discussions)**	**Certain items treated consistently** bp stated that it used the same price assumptions in its investment appraisal processes as for internal planning and VIU impairment testing; we confirmed that the oil and gas prices (other than for 2022 which was explained) were the same across its reporting. **Items that may nor may not be consistent** bp noted that the potential future emissions costs that it might bear *"are included in the investment appraisals as bp costs, generally without assuming incremental revenue"*; the quantitative impact, if any, for the different treatment of emissions costs was not clear. We compared bp's disclosure about the continued use and decommissioning of upstream assets with its estimated production/emissions goals. Based on the lack of sufficient information provided we could not tell if there were any material differences. **Inconsistencies in hydrocarbon production levels used across bp's reporting — more information needed** As in the prior year, throughout its report bp notes an expected 40% reduction in average upstream production amounts by 2030 (from a 2019 baseline) as part of achieving emissions targets. Despite this, it used significantly higher estimated production amounts for its goodwill impairment testing: • bp assumed average production levels over the next 15 years of 865 million barrels of oil equivalent (mmboe). This represents only a slight decline from 2019 production amounts of 908mmboe. • Actual 2021 production amounts of 744 mmboe were approximately 18% lower than 2019 production amounts. In 2021 bp added an explanation for this difference. It indicated that the while the assumptions used for goodwill testing reflected management's best estimate of future production of the existing portfolio, it expects to achieve targeted reductions in upstream hydrocarbon production through *"future active management and high-grading of the portfolio"*, noting that *"[c]hanges in upstream production since 2019 will be included in the best estimate however as the specific future changes to the portfolio are not yet known, the current best estimate does not include the full extent of the expected upstream production reduction."* Although bp has partly explained the different production amounts, this does not support why bp would estimate ongoing increases in production for goodwill impairment testing if these do not reflect its future plans for the existing assets as well as ways in which it intends to achieve its emissions targets. • While it is helpful that the 15-year average production levels assumed for impairment testing are disclosed, the explanation does not fully reconcile the difference. • More information is needed to understand why assumed average production for the next 15 years is 16% higher than the actual for 2021 of 744mmboe, and why it is appropriate that the levels that are assumed are considered best estimates rather than the levels expected to achieve the company's targets. **Note:** In its audit report, Deloitte more directly comments on this difference. It "assessed whether management's forecasts are consistent overall with bp's strategy, including the group's expectation to reduce its hydrocarbon production (by around 40% by 2030 relative to 2019). [It] observed they are **not consistent** in aggregate as bp expects to dispose of certain non-core assets in future periods" [emphasis added]. There was no further indication of the inconsistency having been resolved. *bp Annual Report on Form 20-F 2021. See also bp Accounting Assessment.*

Source: Carbon Tracker and CAAP analyses

Table 12: Examples of apparent inconsistencies across reporting (Metric 1c)

Delta/Airlines

Metric 1c was not met	"Outside" the FY2021 financials, Delta discussed emissions targets and risks related to climate change and the energy transition, including potential reputational damage and further emissions regulatory actions. However, there was no indication of consideration of the impacts of such items in the financials such as the higher operational costs and lower demand.

SSAB/Steel

Metric 1c was not met	SSAB's annual report identified several transition-related climate risks including the impacts of carbon pricing, increased compliance costs and the risks of not achieving its decarbonisation targets. Despite this, none of these appear to have been reflected in the FY2021 financial statements. For example, SSAB did appear to have included the potential impacts of increased costs of compliance and investments required to achieve the company's stated medium-term Scope 1 and 2 emissions targets on remaining useful lives or in the forecasted cash flows used in impairment testing. **Looking forward:** In 2022, SSAB significantly updated its decarbonisation strategy and increased its ambitions with respect to the energy transition and now aims to be largely carbon free by 2030, shifting its ambitions by 15 years. The acceleration of its targets may have a significant impact on its financials in FY2022 and beyond, further highlighting the need for alignment between its financial statements and wider disclosures. *SSAB Annual Report 2021*

Source: Carbon Tracker and CAAP analyses

Appendix 3 - Audit report examples (Sub-indicator 2)

3.1 Metric 2a: Audit reports - Consideration of climate - Examples

Table 13: Examples of comprehensive auditor consideration of climate (Metric 2a)

bp/Deloitte (Oil & Gas)	
Key items of note	• Included a separate climate change KAM as well as one on impairment and decommissioning provisions • Deloitte challenged impairment judgements (and consistency with bp's 2030 targets), the remaining lives of refining assets in the face of climate and goodwill impairment considerations • It assessed whether bp should record decommissioning provisions for the refining assets and explained how it gained comfort • Used own climate change specialists as part of assessing the impacts on bp's financial statements
Metric 2a was met	As in the prior year, Deloitte identified KAMs in its audit report for accounting topics that could be affected by climate: Potential impact of climate change and the energy transition, Impairment of upstream oil and gas property, plant, and equipment (PP&E) assets and Decommissioning provisions. We provide select information from our assessment of the audit report below. In the audit report, Deloitte: • Explained how it considered the impacts of climate-related matters on such items and indicated that it used its own climate change specialists. • Identified various climate-related risks (and communicated them to the audit committee), including the forecast assumptions used in VIU impairment assessments of oil and gas assets, the timing of future decommissioning expenditures, recoverability of certain exploration and appraisal (E&A) assets, the carrying value of refining assets, bp's intention to reduce hydrocarbon production by 2030, the useful lives of refining assets, goodwill recoverability and climate change-related litigation. Deloitte challenged management on various items, including: • The judgements used for impairment of E&A assets and whether they were consistent with bp's 2030 production targets; • Whether bp should adjust useful economic lives of refining assets in the face of climate change, and considered IEA product demand forecasts including the IEA SDS; • Whether assumptions other than O&G prices could cause goodwill to be materially misstated in the face of the energy transition/climate change; • Whether further emissions costs, climate change and the energy transition could materially impact oil and gas asset values; and • Whether bp should record decommissioning obligations for its refineries. Deloitte described the procedures it performed to gain comfort that bp could not reliably "estimate a settlement date for any decommissioning obligations prior to a decision being made to cease refining operation", including noting the option of production of low carbon and sustainable fuels. Deloitte reviewed (and confirmed) third party forecast price reports to "understand whether their oil and gas prices are forecast on a 'net producer prices' basis" as bp used in VIU testing. Deloitte explained its conclusions on these matters in its audit report. *bp Annual Report and Form 20-F 2021. See also bp Accounting Assessment.*

Glencore/Deloitte (Diversified Mining)

Key item of note	• KAM focussed on climate change that specified assessment of various aspects of potential financial impact (e.g., useful lives, goodwill impairment, rehabilitation provisions)
Metric 2a was met	In its audit report, Deloitte included a climate-specific KAM, which took in assessment of different aspects of the potential impacts of climate change and the energy transition on the company's financial statements. Climate change also featured as part of its assessment of another KAM on impairment of non-current assets, with the auditor cross-referencing to the climate-specific KAM. For its assessment of the climate-specific KAM, Deloitte focussed on six areas: coal pricing, asset useful lives, carbon costs, marketing coal goodwill, rehabilitations provisions and consistency. It described in detail the procedures it used to test these items to assess the impacts of climate during its audit. Among other things, it compared the company's assumptions, such as the demand for oil and coal, and internal modelling against various climate scenarios, including IEA scenarios. It explained how it challenged the company's judgements and worked with its own internal specialists when considering the consistency of Glencore's reporting and the impacts of climate change risk as part of its risk assessment. For example, when testing carbon costs, Deloitte evaluated Glencore's position on carbon pricing with reference to IEA World Energy Outlook 2021. It challenged the consistency of modelled carbon costs, commodity prices and Glencore's ability to pass on costs. It performed its own sensitivity analyses for such carbon costs. *Glencore Annual Report 2021*

Shell/EY (Oil & Gas)

Key item of note	• Assessment of going concern and stranded asset risk, evaluation of climate strategy and testing relevant KAMs / ISAs
Metric 2a was met	As part of planning and performing the audit, EY held internal "climate risk workshops," used its own climate change/ energy transition specialists and considered IIGCC investor requests. EY used carbon prices from the IEA NZE scenario and Brent prices of $20/bbl for 2022 and 2023 to assess the impacts of climate on Shell's ability to continue as a going concern. It examined Shell's Upstream and Integrated Gas assets against the IEA NZE, including whether the downside sensitivity could have impacted Shell's ability to pay 2021 dividends. EY evaluated how Shell's climate strategy and Scope 1 and 2 emissions targets had been factored into its operating plan and financial reporting. This included the assessment of its climate plans and investments in diversifying its energy business, whether the relevant OPEX amounts were reflected in impairment testing, and whether the identified climate risks had been reflected in financial reporting. Similar to the prior year, EY included several KAMs that could be impacted by climate, including the estimation of oil and gas reserves, PPE impairment, decommissioning provisions, and a separate KAM on the "impact of climate change and the energy transition on the financial statements". It identified Exploration and evaluation (E&E) assets as a separate KAM in 2021 "given the heightened risk that these assets will not be developed because of the energy transition." EY described how it considered climate matters in auditing these and other issues. It highlighted the increased risk of estimation uncertainty due to climate change and the energy transition. EY analysed the assets that are "currently forecast to be producing beyond 2030 and estimated the carbon intensity of the most significant fields that are expected to be producing after 2030". It estimated the values of such Upstream and Integrated Gas PPE assets (based on the estimated level of remaining reserves) to be ~$20bn in 2030, with 80% of relevant PPE depreciated. Based on this work, EY determined that the reserves remaining in 2030 would be recoverable and so, per EY, the risk of "material stranded assets" was low. *Shell plc Annual Report and Accounts for the year ended December 31, 2021, p.215* *See also Carbon Tracker's Shell accounting assessment.*

Source: Carbon Tracker and CAAP analyses

Table 14 provides examples of auditors that discussed consideration of climate for some but not all relevant audit matters.

Table 14: Examples of some indications of auditor consideration of climate (Metric 2a)

Anglo American/PwC (Diversified mining)

Key item of note	• Considered climate in the KAM on impairment, including assessing inclusion of targets and strategies in cash flows
Metric 2a was not met **(but auditor provided some indication)**	PwC reported its consideration of climate-related matters as part of its KAMs – *Assessment of impairment and impairment reversals for intangible assets, property, plant and equipment and investments in associates and joint ventures (Group) and investments in subsidiaries (Parent Company).* As part of its work on this topic: • PwC reported that it "evaluated and challenged management's assessment and judgements in respect of impairment/ impairment reversal indicators, including ensuring that the impact of climate change, and recent commodity price and foreign exchange volatility, were appropriately considered in management's impairment trigger assessment and conclusions" for the Anglo American's finite-lived intangible assets, PPE and investments in JVAs; and • For each CGU where triggers for impairment or impairment reversals were identified, the auditors stated that they undertook activities for, "verifying that costs and benefits of achieving the Group's emissions reduction ambitions and targets and the implementation of projects to mitigate physical climate risk were appropriately included in cash flow forecasts, where such costs and benefits have been incorporated into the approved life of mine plan". It was reiterated as part of this assessment that the assumptions used by the company were not necessarily aligned with a 1.5-degree Paris Agreement scenario. In detailing its audit approach, PwC further stated its more general consideration of Anglo American's identified risks and scenario analysis in its work considering the recoverable value of assets and their useful lives. It reported that there were "no indications" that they could be materially impacted by climate change with regards to current mine life plans. However, PwC did not indicate in its KAM – *Provisions for environmental restoration and decommissioning (Group)*, whether or how it had considered climate-related matters. While elsewhere in its report the auditor made statements abouts the useful lives of the company's assets and climate impacts, as noted above, PwC did not set out the means by which it assessed these matters in relation to environmental and decommissioning provisions. These provisions could be affected by, for example, the introduction or expansion of carbon pricing mechanisms which affect the cost and demand for its products or the useful lives of its assets and so the carrying value of these provisions. *Anglo American Integrated Annual Report 2021*

Equinor/EY (Oil & Gas)

Key item of note	• Consideration of climate only evident for the KAM on recoverability of asset amounts
Metric 2a was not met **(but auditor provided some indication)**	As in the prior year, EY identified two KAMs: *1. Recoverable amounts of production plants and oil and gas assets including assets under development and 2. Estimation of the asset retirement obligation.* We noted that both items that can be impacted by climate-related matters. For the first KAM, EY reviewed the incorporation of climate matters in the "determination of future short- and long-term commodity prices" used in the impairment tests. It used external climate and "sustainable specialists" to evaluate Equinor's CO2 tax assumptions. It also compared management's CO2 assumptions to "current legislation in place in the relevant jurisdictions' announced pledges", and the estimates of forecasted commodity prices and carbon costs that Equinor used in its sensitivity analyses against external scenarios including the IEA NZE. It also assessed Equinor's financial statement disclosures of climate-related issues and related estimation uncertainty. However, as in the prior year, there was no evidence that EY considered the impacts of these or similar matters for KAM 2, such as on the timing and estimated future costs used to calculate the asset retirement obligation. *Equinor, Annual Report and Form 20-F 2021*

Source: Carbon Tracker and CAAP analyses

Table 15: Examples of no evidence of auditor consideration of climate (Metric 2a)

Chevron/PwC (Oil & Gas)

Key item of note	• Lack of evidence when assessing impairment assumptions testing
Metric 2a was not met	PwC included *The Impact of Proved Oil and Natural Gas Reserves on Upstream Property, Plant and Equipment, Net* as the single CAM in Chevron's audit report. We noted that this CAM could be materially affected by climate change-related issues. For example, Chevron's ability to continue to produce these resources economically could be impacted by reduced demand for Chevron's products (leading to declining oil and gas prices), climate regulations that result in either increased costs of carbon emissions or that reduce the use of oil and gas products, and/or Chevron's own emissions reduction aims. All these factors could reduce the volume of resources that could be classified as reserves. PwC identified "commodity prices, and development, production and carbon costs" as relevant to this CAM and subject to significant judgement. However, it did not indicate how it scrutinised the impacts of climate, if at all, on these items. This is despite the fact that, in FY2021, Chevron identified carbon costs and the "pace of the energy transition" as one of the matters that could determine "whether and how much" an asset is impaired. *Chevron Corporation Form 10-K for the year ended December 31, 2021.*

l'Air Liquide/PwC and EY (Chemicals)

Key item of note	• Materiality of climate and assessment of relevant matters
Metric 2a was not met	In their audit report, PwC and EY identified KAM topics that we noted could be impacted by climate. These included *Large Industries activity: the useful lives of production units relating to large industries activity* and *Impairment test of goodwill.* In its reporting, Air Liquide noted that production unit lives and cash flows from activities could be impacted by climate matters such as its emissions targets and market developments towards decarbonisation. It indicated that it considered the potential impact of climate on the useful lives of its assets, impairment, its client portfolio and cashflows, but that the impact was not material. Despite the auditors noting that the return on investments and recoverable amounts of the production units could be "adversely impacted" by various events, including the company's "sustainable development objectives and commitments", there was no evidence of how PwC and EY considered Air Liquide's assessment of materiality, or the impacts of relevant climate-related matters, in their audit. *Air Liquide Universal Registration Document 2021*

Source: Carbon Tracker and CAAP analyses

3.2: Metric 2b: Audit reports- consistency checks-examples

Table 16: Examples: Auditor consistency check (Metric 2b)

bp/Deloitte (Oil & Gas)

Key item of note	• Deloitte identified an inconsistency between the company's aggregate future production targets and those production volumes used to test goodwill for impairment.
Metric 2b was met	Deloitte stated that it read bp's 'Other information', which consisted of all other information included in bp's annual report. Deloitte also highlighted the inconsistency in bp's projected production amounts. See Table 11, noting that bp's expectation to reduce hydrocarbon production ~40% by 2030 (from 2019) "includes potentially disposing of certain high emissions intensity upstream oil assets and others". As part of its assessment Deloitte considered whether the progression of bp's projects would be inconsistent with this reduction as well as other elements of its strategy such as its net zero carbon aims, and bp's 'no exploration in new countries' commitment. Deloitte also assessed whether management's forecasts were consistent with bp's strategy (a decline in 40% production by 2030). It concluded that they were not "consistent in aggregate because bp expects to dispose of certain non-core assets in future periods". Deloitte's clear highlighting of this discrepancy resulted in meeting this metric. *bp Annual Report 2021*

Source: Carbon Tracker and CAAP analyses

Table 17: Examples of no indication of inconsistencies in audit report (Metric 2b)

Shell/EY (Oil & Gas)

Key item of note	• Inputs are not aligned with the current assessment of targets
Metric 2b was not met	EY defined the 'Other information' that it had assessed to ensure no material inconsistencies with Shell's financial statements and concluded that it had nothing to report. It also specifically indicated that it found no material inconsistencies between the other information and the information in Shell's Note 4 on climate-related matters. Although EY detailed how it considered the impacts of Shell's emission targets on its financial statements, its assessment appeared to only extend to Shell's 2030 targets. In the prior year EY acknowledged that Shell's operating plan and the price assumptions it used in its financials did not reflect its 2050 net zero emissions targets. It is not clear why EY did not include a similar comment in its current year audit report, despite Shell stating that its operating plans, which it uses in preparing its financial statements, "cannot reflect [its] 2050 net zero emissions target and 2035 NCF target, as these targets are currently outside [its] planning period". [emphasis added] We note that the accounting requirements are not limited based on planning period, and for example, estimates of cash flows are needed for assessing impairment and other items which may extend beyond the forecast period. *Shell plc Annual Report and Accounts for the year ended December 31, 2021*

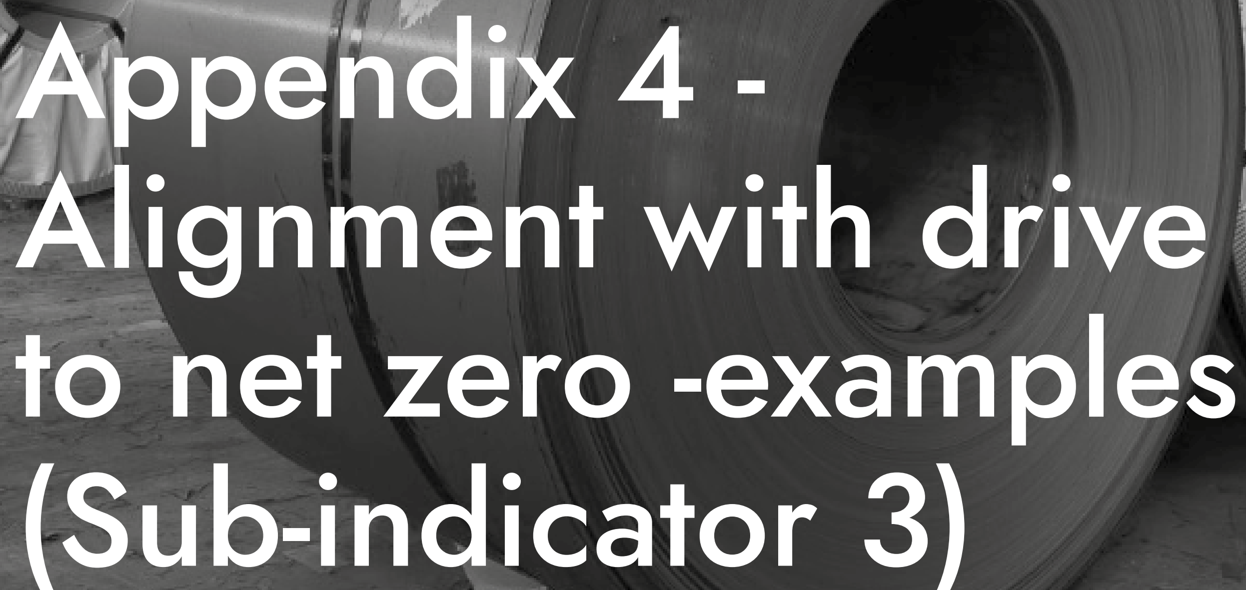
Rio Tinto/KPMG (Diversified Mining)

Key item of note	• Changes to targets not included in considerations
Metric 2b was not met	In the FY 2020 report, KPMG (Rio Tinto's auditor) noted that it "read the Group's disclosure of climate-related information in the front half of the annual report and compared this to our knowledge gained from our financial statement audit work." While KPMG did not explicitly note any material misstatements or inconsistencies, it did note that Rio Tinto is still determining the consequences of its 2050 net zero targets on its financial statements, and that future carrying amounts of assets/liabilities could change as a result. In 2021, Rio Tinto set more ambitious targets. In its FY2021 audit report, however, KPMG did not provide a description of why these changes to the company's targets do not appear to have resulted in any changes to the carrying amounts of assets and liabilities, as previously suggested, and how the auditor became satisfied with this result; additionally, KPMG removed the previous year's cautionary statement. In hand with some noted inconsistencies between Rio Tinto's reporting in its financial statements compared with wider annual report, this omission meant that the auditor was scored down from the previous year. *Rio Tinto Annual Report 2021*

Source: Carbon Tracker and CAAP analyses

09

Appendix 4 - Alignment with drive to net zero -examples (Sub-indicator 3)



4.1 Metric 3a: Alignment with drive to net zero - Financial statements - Examples

Table 18: Examples of alignment of financial statements with drive to net zero (Metric 3a)

Eni/Oil & Gas

Key item of note	• Sensitivity to achieving drive to net zero
Metric 3a was met	The assumptions that Eni used in its financials were not aligned with those required to achieve net zero by 2050 or sooner and no more than 1.5℃ warming. However, Eni performed a sensitivity of its oil and gas CGUs ("across all geographic areas where Eni operates its oil & gas activities") to using IEA NZE commodity and CO2 prices in its value in use impairment assessments. It concluded that, using such assumptions, it had headroom in excess of 30% compared to the carrying amount of such CGUs. Eni noted that this is in comparison to approximately 90% headroom using Eni's own scenario when testing value in use of its Oil & Gas CGUs, and 75% headroom when Eni assessed these carrying amounts against the IEA SDS. In the future, a breakdown of relevant asset classes, and the sensitivity of the timing of decommissioning obligations, would also be useful as part of this sensitivity analysis. *Eni 2021 Annual Report*

Equinor/Oil & Gas

Key item of note	• Sensitivity to IEA NZE commodity and CO2 prices
Metric 3a was met	The assumptions that Equinor used to prepare its financials were not aligned with achieving the drive to net zero. Equinor also provided a sensitivity analysis to using IEA NZE commodity and CO2 prices in its value in use impairment assessments as follows: • "A calculation of a possible effect of using the prices (including CO2 prices) in a 1.5℃ compatible Net Zero Emission by 2050 Scenario as estimated by the International Energy Agency (IEA) could result in an impairment of around USD 7 billion before tax. This illustrative impairment sensitivity is based on a simplified model and limitations further described in note 11 Property, plant & equipment." Per Equinor, this "assumes no changes to input factors other than prices; however, a price reduction of 30% or those representing Net Zero Emission scenario is likely to result in changes in business plans as well as other factors used when estimating an asset's recoverable amount." • Separately, Equinor indicated that a decline in commodity prices over the life of certain producing, development, and intangible assets by 30% (which it considers to be a "reasonably possible change") could lead to pre-tax impairment of approximately $9bn. Note: At year-end, total PPE was $62.1bn, and included Production plants and oil and gas assets of $45.6bn, and Assets under development of $12.3bn. FY2021 impairment was $1.3bn and related to producing/development assets valued $10.6bn at year end (after impairment). Equinor's assumed Oil & Gas price forecasts were $60/bbl in 2050 for Brent oil and $ 7.0/mmbtu for Natural gas (UK). *Equinor Annual Report and Form 20-F 2021*

Glencore/Diversified mining

<table>
<tr><td>Key item of note</td><td>When applying adjusted IEA NZE prices,[101] $9.6bn of $10.6bn of non-current capital employed for thermal coal CGUs would be impaired.</td></tr>
<tr><td>Metric 3a was met</td><td>Glencore acknowledged that the assumptions it used in its financial statements were not aligned with achieving the drive to net zero. However, it provided a set of illustrative sensitivities for its thermal coal and oil exploration and production CGUs against the price projections of different IEA scenarios, including adjusted IEA NZE prices.
For its thermal coal CGUs, which are its largest source of Scope 3 emissions (and which also appear to be the most significant fossil fuel assets on its balance sheet), Glencore reported an illustrative impairment of $9.6bn against a carrying value of $10.6bn when assessing it against the IEA NZE.
Glencore also provided a "Complete Displacement Scenario (CDS)" which assumes fossil fuels are, "immediately displaced as an energy source and the resulting immediate fall in commodity prices to zero." Under CDS, the value of net current capital employed for thermal coal and oil would decline to zero. For the Oil E&P CGU, which, at $0.5bn, did not have a significant carrying value at year end, none of the other sensitivities - which included prices to 2030 - resulted in an impact.
While it did not appear to provide sensitivities for its Coking coal and Astron Energy or Coal marketing goodwill CGUs against the IEA NZE, based on the nature, size of the assets ($1.8bn, $0.8bn and $1.7bn, respectively) and emissions potential, the sensitivities that Glencore did provide were sufficient to achieve this metric.
Further, Glencore stated that under its Radical Transformation scenario (which it indicated is equivalent to IEA NZE but which we did not confirm), an increase of 10-60% in its marginal supply costs would result in "no expected overall material impacts" on its overall business. By contrast, its assessment of the individual fossil fuel-related CGUs against the IEA NZE would result in substantial impairments for its thermal coal and full impairment to its oil exploration and production.
Glencore explains this difference by indicating that, "[a]gainst a backdrop of generally healthy expected increasing metals demand to support decarbonisation, we anticipate that cost (via carbon) and demand forces (lower supply in the case of coal) will drive those commodity prices higher, such increases being passed through to consumers, resulting in no expected overall materially negative impacts on our business. In fact, first and second quartile (below average) emission intensity producers, where we see the weighted average of our portfolio residing, are likely to see margin expansion."

Glencore Annual Report 2021</td></tr>
</table>

Source: Carbon Tracker and CAAP analyses

101 "IEA thermal coal prices are on a delivered basis. These have been adjusted to FOB pricing on the basis of forward freight costs. Furthermore, in determining the Colombian CIF price, [Glencore] used a weighting of the IEA Japan and IEA European prices to take into account that Colombian coal sold from Cerrejon is likely to be delivered to a combination of different markets in the future as coal demand in Europe declines." Glencore Annual Report 2021 p. 154.

Table 19 includes examples of companies that provided sensitivities to achieving climate scenarios that are hybrids of those that would be required for alignment with the drive to net zero.

Table 19: Examples of financial statements with some sensitivities (Metric 3a)

bp/Oil & Gas

Key item of note	Sensitivity to hybrid NZE scenarios
Metric 3a was not met **(but company provided some indication)**	bp indicated that the price assumptions it used in impairment testing were aligned with achieving "well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, however, from the text it was not clear if that was the case. bp also provided a "net revenue" sensitivity to how each, or a combination of, changes in oil and natural gas prices, carbon emissions costs/ carbon prices, changes in oil and natural gas production could impact forecasted revenue cash flows (and so impairments). The inputs, and sensitivity to, that bp used did not appear aligned with achieving the drive net zero, as defined. For example: • bp looked at the "combined effect on net revenue of 20% in all future years" on VIU impairment testing. It found that, in isolation, these changes in revenue would reduce the value of oil and gas PPE by ~$16- 17bn (or 14-15% of PPE). • We note that a 20% decline in the oil and prices that bp used equates to: a Brent oil price of $36/bbl by 2050, which is greater than the IEA NZE (crude oil) of $24/bbl in 2050; and a Henry Hub gas price of $2.2/mmBtu by 2050, which is also greater than the IEA NZE (US) $2.0/mmBtu. Additionally, bp indicated that if the reduction in net revenue was solely based on declines in oil prices, the reduced Brent oil prices would be "in the middle of the range of prices associated with a pre-publication version (see page 64) of the World Business Council for Sustainable Development (WBCSD) 'family' 70 of scenarios considered to be consistent with limiting global average temperature to 1.5°C above preindustrial levels." We noted that this report included a wide range of prices, including a scenario in which oil reaches ~$99/bbl by 2050 (the NGFS Net Zero). We did not believe this to be a realistic oil price assumption that would be aligned to achieving no more than 1.5°C. *bp Annual Report and Form 20-F 2021*

Shell/Oil & gas

Key item of note	Sensitivity to hybrid NZE scenarios
Metric 3a was not met **(but company provided some indication)**	Shell acknowledged that the inputs used in its financials were not yet in line with net zero by 2050. Shell also conducted sensitivity analyses for Upstream and Integrated Gas assets against four different commodity price scenarios: 1) & 2): Sensitivities to +/- 10% to the mid-price outlook; 3) Average prices of four 1.5-2 degrees Celsius external climate change scenarios; and 4) Hybrid Shell Plan + IEA NZE50 (i.e., IEA NZE) (which consists of Shell's mid-price outlook (~$60/b) for ten years to 2031 followed by IEA NZE prices onwards).[102] Shell disclosed the financial impacts of these sensitivities on the relevant assets' recoverable amounts. However, none of these price scenarios fully aligned with those needed to achieve net zero by 2050 or sooner and no more than 1.5 degrees warming. In the case of the Hybrid Shell Plan + IEA NZE50 price scenario, the commodity prices in the first ten years of the analysis were higher than those used in the IEA NZE scenario. *Shell Annual Report and Accounts 2021*

Source: Carbon Tracker and CAAP analyses

102 Shell Annual Report and Accounts 2021, pp.242-3

Table 20: Examples of financial statements with no information about drive net zero (Metric 3a)

Exxon/ Oil & Gas

Metric 3a was not met	Exxon did not disclose the relevant assumptions/estimates that it used to prepare the financial statements, such as long-term commodity prices, estimates of future production or carbon prices or changes in demand or margins, there would have been no way for us to assess if the inputs were aligned with achieving this metric. However, Exxon was clear that "[w] hile third-party scenarios, such as the International Energy Agency Net Zero Emissions by 2050, may be used to test the resiliency of the Corporation's businesses or strategies, they are not used as a basis for developing future cash flows for impairment assessments." Additionally, it did not provide a sensitivity analysis to using such inputs. Instead, it noted that "due to the inherent difficulty in predicting future commodity prices or margins, and the relationship between industry prices and costs, it is not practicable to reasonably estimate the existence or range of any potential future impairment charges related to the Corporation's long-lived assets." *Exxon Mobil Corporation Form 10-K for the year ended December 31, 2021.* See also discussions about the relevant shareholder resolutions in Section 4 and Carbon Tracker's accounting assessment.

Source: Carbon Tracker and CAAP analyses

4.2 Metric 3b: Alignment with drive to net zero - Audit reports - Examples

Table 21: Examples of auditor consideration of net zero alignment (Metric 3b)

Eni/PwC (Oil & Gas)

Key item of note	• Verification of company sensitivity
Metric 3b was met	PwC did not comment on Eni's alignment with the drive to achieving net zero. However, it noted that it verified Eni's sensitivity to achieving the drive to net zero so was assessed as "Yes" for this metric. In the future, we would also expect at least an assessment of the timing of decommissioning obligations to achieving this drive. *Eni Annual Report 2021*

Equinor/EY (Oil & Gas)

Key item of note	• Assessment of company sensitivity
Metric 3b was met	EY did not comment on whether the estimates used by management were aligned with this drive or indicate what appropriate inputs might be. In its assessment of Equinor's AROs, EY performed a "sensitivity analysis on the significant assumptions" but did not indicate if these were aligned with IEA NZE. However, EY also used the IEA's NZE scenario to evaluate the sensitivity analyses related to Equinor's carbon and commodity price forecasts and, therefore, met this metric. In the future, we would also expect at least an assessment of the timing of AROs to achieving this drive. *Equinor Annual Report and Form 20-F 2021*

Glencore/Deloitte (Diversified Mining)

Key item of note	• Assessment of impairment sensitivities for coal assets against net zero scenario
Metric 3b was met	Deloitte challenged whether management's sensitivities were evidence of further indications of impairment for the thermal coal assets and evaluated Glencore's coal production profile against the IEA scenarios. It determined that the assumptions to which "impairment outcomes...were sensitive were reasonable" based on "historical actuals achieved, third party evidence and/or our specialists' judgements". It found management's sensitivity disclosures in the notes to be "appropriate" in the context of climate change risks. We noted that Glencore's thermal coal CGUs represented the majority of its fossil fuel assets. *Glencore 2021 Annual Report*

Source: Carbon Tracker and CAAP analyses

Table 22 provides an example of an auditor that assessed a company's sensitivity analysis to an undefined net zero scenario.

Table 22: Examples of auditor consideration of net zero alignment -evidence of progress (Metric 3b)

Centrica/Deloitte (Electric Utilities)

Key item of note	• Performing sensitivity analyses using an undefined net zero scenario
Metric 3b was not met **(But the auditor provided some indication)**	Deloitte indicated that it viewed Centrica's future commodity price forecasts to be acceptable even with the prices being above those in "the net zero scenario" (not defined). Deloitte determined that Centrica's estimates were in the middle of a range of external sources. In addition, Deloitte performed its own sensitivity analysis on the forecasted future cash flows using "alternative future prices", including a "scenario which assumes governmental policies are put in place to achieve the temperature and net zero goals by 2050". It also "recalculated management's disclosures relating to the sensitivity of the Group's impairment tests to reduced commodity prices, including the Net Zero curves". However, Deloitte did not explain how it reperformed management sensitivity analyses to 2050 as Centrica's price sensitivity appeared to stop at 2036, even though we noted that the lives of Centrica's upstream oil and gas assets appeared to go beyond 2036. Additionally, Deloitte did not identify the prices or the external net zero scenarios that it used to assess Centrica's estimates. *Centrica Annual Report and Accounts 2021*

Source: Carbon Tracker and CAAP analyses

Table 23: Examples: No evidence of auditor consideration of net zero alignment (Metric 3b)

Holcim/Deloitte (Cement)

Key item of note	• No discussion or assessment of net zero alignment by the auditor, despite the cement company's net zero target.
Metric 3b was not met **(But the auditor provided some indication)**	Holcim has set 2050 net zero emissions targets across its value chain which have been verified by the Science Based Targets Initiative (note that this was not assessed as part of our reviews). These include reducing Scope 1 and 2 emissions by 95% per ton of cementitious materials by 2050. In preparing its financial statements, Holcim indicated that it used assumptions and estimates that were based on available information and existing regulation and cash flow projections aligned with its 2025 strategy. The company did not report sufficient quantitative assumptions/estimates to assess this alignment. It did not provide sensitivity analysis or similar for its longer-term net zero targets. Deloitte noted consideration of the company's relevant assumptions/estimates (e.g., impacts on costs and revenues of carbon pricing and impact on useful lives) as part of its audit work described in the KAM on goodwill. The auditor restated that Holcim's assumptions align with its 2025 strategy and did not comment any further on implications of the company's longer-term climate ambitions on these assumptions. Deloitte did not appear to have assessed Holcim's assumptions/estimates against credible climate scenarios aligned with achieving the drive to net zero, and nor did it appear to have conducted any relevant sensitivity analysis for Holcim, such as around future carbon pricing and impairment. *Holcim 2021 Integrated Annual Report*

Source: Carbon Tracker and CAAP analyses

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Appendix 5 - List of companies and scores

As noted in this report, as a result of the timing of our review work (March -July 2022) we primarily examined companies that had financial years ending 31 December 2021. Table 25 lists the companies that we reviewed for this report, their Overall scores and Metric scores, their sector, location, auditor, and the relevant accounting and audit standards applied. We did not include Sub-indicator scores, but these follow the methodology described in Appendix 1.

Comments on Table 24:

The company sectors and locations included in the table are from the Climate Action 100+ website,103 with the exception of Trane Technologies plc and LyondellBasell Industries N.V. which are treated as US domestic companies for their SEC filings. .

We have included a reference to the primary accounting and auditing standards used by companies and their auditors in the reports we reviewed to support the assessment.

Reference to IFRS accounting standards includes IFRS as issued by the IASB and local versions of IFRS, including IFRS as adopted by the European Union. Reference to ISAs includes national or local jurisdictions which may have adopted limited modifications of these standards.

When available, we reviewed the company's local annual report (and related audit reports). However, if foreign private issuers did not have local (e.g., ISA) audit reports in English, we assessed their PCOAB reports instead (and noted PCAOB for them in the table).

Asterisk (*) next to company names denotes that the company was also assessed for FB 1.0.

We have flagged improvement or decline in the metric scores from the respective company assessment that was performed for the March 2022 Benchmark Assessment with (+) or (-), respectively.

Key to Table 24

Overall Scores	Met
	Partially met
	Not met
Metric Scores	Yes/Met
	No/Not met

103 See at Companies | Climate Action 100+

Table 24: Companies assessed: overall and metric scores

							Financial statements			Audit reports		Alignment with drive to net zero	
Company	Auditor	Location	Sector	Acctg stds[104]	Audit stds[105]	Overall score	Metric 1a	Metric 1b	Metric 1c	Metric 2a	Metric 2b	Metric 3a	Metric 3b
A.P. Møller-Mærsk A/S*	PwC	Europe/UK	Shipping	IFRS	ISAs								
Adbri Ltd.	PwC	Asia Pacific	Cement	IFRS	ISAs								
AES Corp.	EY	USA/Canada	Electric Utilities	US GAAP	PCAOB								
Air France-KLM S.A.*	KPMG/ Deloitte	Europe/UK	Airlines	IFRS	ISAs								
Airbus SE*	EY	Europe/UK	Other transport	IFRS	ISAs								
American Airlines Group Inc.*	KPMG	USA/Canada	Airlines	US GAAP	PCAOB								
American Electric Power Company, Inc.	PwC	USA/Canada	Electric Utilities	US GAAP	PCAOB								
Aneka Tambang Tbk PT*	PwC	Asia Pacific	Coal Mining	IFRS	ISAs								
Anglo American plc*	PwC	Europe/UK	Diversified Mining	IFRS	ISAs								
Anhui Conch Cement Company Ltd.*	KPMG	Asia Pacific	Cement	IFRS	ISAs								
BASF SE*	KPMG	Europe/UK	Chemicals	IFRS	ISAs								
Bayer AG	Deloitte	Europe/UK	Chemicals	IFRS	ISAs								
Bayerische Motoren Werke Aktiengesellschaft (BMW) *	PwC	Europe/UK	Automobiles	IFRS	ISAs								
Berkshire Hathaway Inc.	Deloitte	USA/Canada	Other industrials	US GAAP	PCAOB								
Boeing Co.*	Deloitte	USA/Canada	Other transport	US GAAP	PCAOB								
bp plc*	Deloitte	Europe/UK	Oil & Gas	IFRS	ISAs						(+)		

104 Accounting standards
105 Auditing standards

Company	Auditor	Location	Sector	Acctg stds[104]	Audit stds[105]	Overall score	Financial statements			Audit reports		Alignment with drive to net zero	
							Metric 1a	Metric 1b	Metric 1c	Metric 2a	Metric 2b	Metric 3a	Metric 3b
Bumi Resources TbK PT*	Other	Asia Pacific	Coal Mining	IFRS	ISAs								
Bunge Ltd.*	Deloitte	USA/Canada	CGS[106]	US GAAP	PCAOB								
Canadian Natural Resources Ltd.	PwC	USA/Canada	Oil & Gas	IFRS	PCAOB								
Caterpillar Inc.*	PwC	USA/Canada	Other industrials	US GAAP	PCAOB								
Cemex S.A.B. de C.V.*	KPMG	Emerging Markets	Cement	IFRS	ISAs								
Centrica plc	Deloitte	Europe/UK	Oil & Gas Distribution	IFRS	ISAs								
CEZ, A.S.	EY	Europe/UK	Electric Utilities	IFRS	ISAs								
Chevron Corp.*	PwC	USA/Canada	Oil & Gas	US GAAP	PCAOB								
China National Offshore Oil Corp. (CNOOC) Ltd.*	EY	Asia Pacific	Oil & Gas	IFRS	ISAs								
China Petroleum & Chemical Corp. (Sinopec)*	KPMG	Asia Pacific	Oil & Gas	IFRS	ISAs								
China Shenhua Energy Co. Ltd.	KPMG	Asia Pacific	Coal Mining	IFRS	ISAs								
China Steel Corp.*	Deloitte	Asia Pacific	Steel	IFRS	ISAs								
Coal India Ltd.	Other	Asia Pacific	Coal Mining	IFRS	ISAs								
Colgate-Palmolive Co.*	PwC	USA/Canada	CGS	US GAAP	PCAOB								
ConocoPhillips*	EY	USA/Canada	Oil & Gas	US GAAP	PCAOB								
CRH plc*	Deloitte	Europe/UK	Cement	IFRS	ISAs								
Cummins Inc.*	PwC	USA/Canada	Other industrials	US GAAP	PCAOB								
Dangote Cement Plc*	KPMG	Emerging Markets ex-Asia	Cement	IFRS	ISAs								
Danone S.A.*	EY/PwC	Europe/UK	CGS	IFRS	ISAs								

106 CGS is the Consumer Goods & Services Sector

Company	Auditor	Location	Sector	Acctg stds[104]	Audit stds[105]	Overall score	Financial statements			Audit reports		Alignment with drive to net zero	
							Metric 1a	Metric 1b	Metric 1c	Metric 2a	Metric 2b	Metric 3a	Metric 3b
Delta Air Lines, Inc.*	EY	USA/Canada	Airlines	US GAAP	PCAOB								
Devon Energy Corp.*	KPMG	USA/Canada	Oil & Gas	US GAAP	PCAOB								
Dominion Energy, Inc.	Deloitte	USA/Canada	Electric Utilities	US GAAP	PCAOB								
Dow Inc.*	Deloitte	USA/Canada	Chemicals	US GAAP	PCAOB								
Duke Energy Corp.	Deloitte	USA/Canada	Electric Utilities	US GAAP	PCAOB								
E.ON SE*	KPMG	Europe/UK	Electric Utilities	IFRS	ISAs								
Ecopetrol SA*	EY	Emerging Markets ex-Asia	Oil & Gas	IFRS	PCAOB								
Electricite de France (EDF) S.A.*	KPMG/ Deloitte	Europe/UK	Electric Utilities	IFRS	ISAs								
Enbridge Inc	PwC	USA/Canada	Oil & Gas Distribution	US GAAP	PCAOB								
Enel SpA*	KPMG	Europe/UK	Electric Utilities	IFRS	ISAs								
ENEOS Holdings Inc.	EY	Asia Pacific	Oil & Gas	IFRS	ISAs								
Engie SA*	Deloitte/EY	Europe/UK	Electric Utilities	IFRS	ISAs								
Eni SpA*	PwC	Europe/UK	Oil & Gas	IFRS	ISAs	(+)						(+)	(+)
Equinor ASA*	EY	Europe/UK	Oil & Gas	IFRS	ISAs	(+)						(+)	(+)
Exxon Mobil Corp.*	PwC	USA/Canada	Oil & Gas	US GAAP	PCAOB								
FirstEnergy Corp.*	PwC	USA/Canada	Electric Utilities	US GAAP	PCAOB								
Ford Motor Company	PwC	USA/Canada	Automobiles	US GAAP	PCAOB								
Formosa Petrochemical Corp.*	EY	Asia Pacific	Oil & Gas	IFRS	ISAs								
Fortum Oyj	Deloitte	Europe/UK	Electric Utilities	IFRS	ISAs								
General Electric Co.	Deloitte	USA/Canada	Other industrials	US GAAP	PCAOB								
General Motors Company	EY	USA/Canada	Automobiles	US GAAP	PCAOB								
Glencore plc*	Deloitte	Europe/UK	Diversified Mining	IFRS	ISAs							(+)	(+)

						Overall score	Financial statements			Audit reports		Alignment with drive to net zero	
Company	**Auditor**	**Location**	**Sector**	**Acctg stds[104]**	**Audit stds[105]**		**Metric 1a**	**Metric 1b**	**Metric 1c**	**Metric 2a**	**Metric 2b**	**Metric 3a**	**Metric 3b**
Grupo Argos S.A.*	KPMG	Emerging Markets ex-Asia	Cement	IFRS	ISAs								
HeidelbergCement AG	PwC	Europe/UK	Cement	IFRS	ISAs								
Holcim Group *	Deloitte	Europe/UK	Cement	IFRS	ISAs								
Hon Hai Precision Industry Co. Ltd.	PwC	Asia Pacific	Other industrials	IFRS	ISAs								
Honda Motor Co.	KPMG	Asia Pacific	Automobiles	IFRS	PCAOB								
Iberdrola S.A.*	KPMG	Europe/UK	Electric Utilities	IFRS	ISAs								
Imperial Oil Ltd.	PwC	USA/Canada	Oil & Gas	US GAAP	PCAOB								
International Paper Company*	Deloitte	USA/Canada	Paper	US GAAP	PCAOB								
Kinder Morgan*	PwC	USA/Canada	Oil & Gas Distribution	US GAAP	PCAOB								
Koninklijke Philips*	EY	Europe/UK	Other industrials	IFRS	ISAs								
Korea Electric Power Corp. (KEPCO)*	EY	Asia Pacific	Electric Utilities	IFRS	ISAs								
l 'Air Liquide S.A.*	EY/ KPMG	Europe/UK	Chemicals	IFRS	ISAs								
Lockheed Martin Corp.*	EY	USA/Canada	Other transport	US GAAP	PCAOB								
LyondellBasell Industries N.V. Cl A	PwC	USA/Canada	Chemicals	US GAAP	PCAOB								
Marathon Petroleum Corp.*	PwC	USA/Canada	Oil & Gas	US GAAP	PCAOB								
Martin Marietta Materials Inc*	PwC	USA/Canada	Cement	US GAAP	PCAOB								
Mercedes-Benz Group AG (formerly Daimler AG)*	KPMG	Europe/UK	Automobiles	IFRS	ISAs								
National Grid PLC	Deloitte	Europe/UK	Electric Utilities	IFRS	ISAs								
Naturgy Energy Group S.A.	KPMG	Europe/UK	Oil & Gas Distribution	IFRS	ISAs								
Nestlé S.A.*	EY	Europe/UK	CGS	IFRS	ISAs								
NextEra Energy, Inc*	Deloitte	USA/Canada	Electric Utilities	US GAAP	PCAOB								

Company	Auditor	Location	Sector	Acctg stds[104]	Audit stds[105]	Overall score	Financial statements			Audit reports		Alignment with drive to net zero	
							Metric 1a	Metric 1b	Metric 1c	Metric 2a	Metric 2b	Metric 3a	Metric 3b
Nissan Motor Co. Ltd.	EY	Asia Pacific	Automobiles	IFRS	ISAs								
NRG Energy, Inc.	KPMG	USA/Canada	Electric Utilities	US GAAP	PCAOB								
Occidental Petroleum Corp.*	KPMG	USA/Canada	Oil & Gas	US GAAP	PCAOB								
OMV AG*	EY	Europe/UK	Oil & Gas	IFRS	ISAs								
PACCAR Inc.	EY	USA/Canada	Other transport	US GAAP	PCAOB								
PepsiCo, Inc.	KPMG	USA/Canada	CGS	US GAAP	PCAOB								
PetroChina Co. Ltd.	PwC	Asia Pacific	Oil & Gas	IFRS	ISAs								
Petróleo Brasileiro S.A. (Petrobras)*	KPMG	Emerging Markets ex-Asia	Oil & Gas	IFRS	ISAs								
Petróleos Mexicanos (PEMEX)*	KPMG	Emerging Markets ex-Asia	Oil & Gas	IFRS	PCAOB								
Phillips 66	EY	USA/Canada	Oil & Gas	US GAAP	PCAOB								
Polska Grupa Energetyczna S.A. (PGE)	Deloitte	Europe/UK	Electric Utilities	IFRS	ISAs								
Posco Holdings Inc.*	KPMG	Asia Pacific	Steel	IFRS	PCAOB								
Power Assets Holdings Ltd.*	KPMG	Asia Pacific	Electric Utilities	IFRS	ISAs								
PPL Corp.*	Deloitte	USA/Canada	Electric Utilities	US GAAP	PCAOB								
Procter & Gamble Co.	Deloitte	USA/Canada	CGS	US GAAP	PCAOB								
PTT Public Co. Ltd.*	EY	Asia Pacific	Oil & Gas	IFRS	ISAs								
Raytheon Technologies Corp.*	PwC	USA/Canada	Other transport	US GAAP	PCAOB								
Renault S.A.*	KPMG/ Mazars	Europe/UK	Automobiles	IFRS	ISAs								
Repsol S.A.*	PwC	Europe/UK	Oil & Gas	IFRS	ISAs								
Rio Tinto Group*	KPMG	Europe/UK	Diversified Mining	IFRS	ISAs		(+)			(+)	(-)		
Rolls-Royce Holdings plc*	PwC	Europe/UK	Other transport	IFRS	ISAs	(+)	(+)			(+)			
RWE AG	PwC	Europe/UK	Electric Utilities	IFRS	ISAs								

							Financial statements			Audit reports		Alignment with drive to net zero	
Company	**Auditor**	**Location**	**Sector**	**Acctg stds[104]**	**Audit stds[105]**	**Overall score**	**Metric 1a**	**Metric 1b**	**Metric 1c**	**Metric 2a**	**Metric 2b**	**Metric 3a**	**Metric 3b**
SAIC Motor Corp.	Deloitte	Asia Pacific	Automobiles	IFRS	ISAs								
Saint-Gobain S.A.*	PwC/ KPMG	Europe/UK	Other industrials	IFRS	ISAs								
Santos Ltd.	EY	Asia Pacific	Oil & Gas	IFRS	ISAs								
Saudi Arabian Oil Company (Aramco)*	PwC	Asia Pacific	Oil & Gas	IFRS	ISAs								
Shell plc*	EY	Europe/UK	Oil & Gas	IFRS	ISAs						(-)		
SK Innovation Co. Ltd.*	EY	Asia Pacific	Oil & Gas	IFRS	ISAs								
SSAB AB	EY	Europe/UK	Steel	IFRS	ISAs								
SSE plc	EY	Europe/UK	Electric Utilities	IFRS	ISAs								
Suncor Energy Inc.	KPMG	USA/Canada	Oil & Gas	IFRS	PCAOB								
Suzano S.A.*	PwC	Emerging Markets ex-Asia	Paper	IFRS	PCAOB								
TC Energy Corp.	KPMG	USA/Canada	Oil & Gas Distribution	US GAAP	PCAOB								
Teck Resources Ltd.*	PwC	USA/Canada	Diversified Mining	IFRS	PCAOB								
The Coca-Cola Co.	EY	USA/Canada	CGS	US GAAP	PCAOB								
The Southern Company	Deloitte	USA/Canada	Utilities	US GAAP	PCAOB								
TotalEnergies SE*	KPMG/ EY	Europe/UK	Oil & Gas	IFRS	ISAs								
Toyota Motor Corp.	PwC	Asia Pacific	Automobiles	IFRS	PCAOB								
Trane Technologies plc*	PwC	USA/Canada	Other industrials	US GAAP	PCAOB								
UltraTech Cement Ltd.	Other	Asia Pacific	Cement	IFRS	ISAs								
Unilever plc*	KPMG	Europe/UK	CGS	IFRS	ISAs								
Uniper SE*	PwC	Europe/UK	Electric Utilities	IFRS	ISAs								
United Airlines Holdings, Inc.*	EY	USA/Canada	Airlines	US GAAP	PCAOB								
United Tractors TbK PT*	PwC	Asia Pacific	Other industrials	IFRS	ISAs								

Company	Auditor	Location	Sector	Acctg stds[104]	Audit stds[105]	Overall score	Financial statements			Audit reports		Alignment with drive to net zero	
							Metric 1a	Metric 1b	Metric 1c	Metric 2a	Metric 2b	Metric 3a	Metric 3b
Vale S.A.*	PwC	Emerging Markets ex-Asia	Diversified Mining	IFRS	PCAOB								
Valero Energy Corp.*	KPMG	USA/Canada	Oil & Gas	US GAAP	PCAOB								
Vedanta Ltd.	Other	Asia Pacific	Diversified Mining	IFRS	ISAs								
Vistra Corp.*	Deloitte	USA/Canada	Electric Utilities	US GAAP	PCAOB								
Volkswagen AG*	EY	Europe/UK	Automobiles	IFRS	ISAs								
Volvo AB	Deloitte	Europe/UK	Other transport	IFRS	ISAs								
Walmart, Inc.*	EY	USA/Canada	CGS	US GAAP	PCAOB								
WEC Energy Group, Inc.	Deloitte	USA/Canada	Electric Utilities	US GAAP	PCAOB								
Weyerhaeuser Co.*	KPMG	USA/Canada	CGS	US GAAP	PCAOB								
Woodside Energy Group (formerly Woodside Petroleum Ltd.)	EY	Asia Pacific	Oil & Gas	IFRS	ISAs								
Xcel Energy Inc.	Deloitte	USA/Canada	Electric Utilities	US GAAP	PCAOB								

Source: Carbon Tracker and CAAP Team analyses and Climate Action 100+ website

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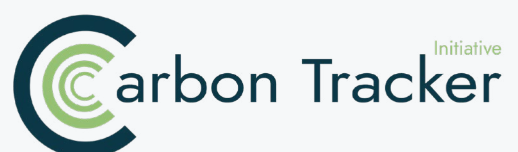

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