



CARBON TRACKER METHODOLOGIES

Climate Action 100+ Net Zero
Company Benchmark: Climate
Accounting and Audit Assessment

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.

www.carbontracker.org | hello@carbontracker.org

Climate Action 100+ Net Zero Company Benchmark: Climate Accounting and Audit Assessment

This document sets out the framework and methodology for how Carbon Tracker Initiative (CTI) assesses company financial statements (and related auditor reports) for consideration of climate risk, as part of the Climate Accounting and Audit Assessment of the Climate Action 100+ Net Zero Company Benchmark (henceforth the 'Benchmark').¹

The Climate Action 100+ Net Zero Company Benchmark draws on distinct analytical methodologies and datasets from public and self-disclosed data from companies, broadly categorised into two types of indicators: Disclosure Framework Indicators, which evaluate the adequacy of corporate disclosure; and Alignment Assessments, which evaluate the alignment of company actions with the Paris Agreement goals. The Climate Accounting and Audit Assessment covers both disclosure and alignment and can hence be considered a "hybrid" assessment.

¹ The data referenced in this document is not intended to be used as a "benchmark" as defined in Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the European Benchmark Regulation) and The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019 (the UK Benchmark Regulation). The Benchmark is not a disclosure mechanism or database itself, rather an assessment tool.

Disclaimer: The information contained in this document is meant for information purposes only and is not intended to be investment, legal, tax, accounting or other advice, nor is it intended to be relied upon in making an investment or other decisions. Without limiting the foregoing, this document is not intended as a voting recommendation on any shareholder proposal. This document is provided with the understanding that the authors and publishers are not providing advice on accounting, audit, legal, economic, investment or other professional issues and services. Climate Action 100+ and the investor networks (individually or as a whole) are not responsible for any errors or omissions, for any decision made or action taken based on information contained in this report or for any loss or damage arising from or caused by such decision or action. All information in this document is provided "as-is" with no guarantee of completeness, accuracy or timeliness, or of the results obtained from the use of this information, and without warranty of any kind, expressed or implied. Please also refer to: <https://www.climateaction100.org/disclaimer/>

Acknowledgements

Leading climate research and data organisations, including the Transition Pathway Initiative (TPI) supported by the Grantham Research Institute on Climate Change and the Environment at the London School of Economics, FTSE Russell, Chronos Sustainability, Carbon Tracker Initiative (CTI), 2° Investing Initiative (2DII) Mountain Institute and InfluenceMap (IM) have been central to the overall development of the Benchmark and the Indicators used to assess focus company alignment with the initiative's goals. The Benchmark was undertaken through the leadership and support of the Climate Action 100+ Steering Committee, and the collaboration of investor signatories and experts from the [investor networks](#) of AIGCC, Ceres, IGCC, IIGCC, and PRI.

Companies' disclosures are assessed against this Climate Accounting and Audit Assessment methodology by [Carbon Tracker Initiative](#) (CTI). CTI is an independent financial think tank that carries out in-depth analysis on the impact of the energy transition on capital markets and the potential investment in high-cost, carbon-intensive fossil fuels. The methodology has been prepared by technical leads from CTI and partner organisations, with input and feedback from representatives from the investor networks who lead the Benchmark project for Climate Action 100+ and additional contributors (see below).

Technical Leads:

Barbara Davidson, Head of Accounting, Audit and Disclosure, **CTI**
Robert Schuwert, Executive Director, North America, **CTI**
Sepi Roshan, Senior Analyst, Accounting, Audit and Disclosure, **CTI**
Sue Harding, **Climate Accounting and Audit Project (CAAP)**

Core Assessment Team:

Charles Guy-Knapp, Associate Analyst, Accounting, Audit and Disclosure, **CTI**
David Astley, Associate Analyst, Accounting, Audit and Disclosure, **CTI**
Tino Gonese, Associate Analyst, Accounting, Audit and Disclosure, **CTI**

Climate Action 100+ Core Benchmark Team:

Valerie Kwan, Director, Engagement, **AIGCC**
Cosmo Hui, Engagement Analyst, **AIGCC**
Morgan LaManna, Director, Investor Engagements, **Ceres**
Kate Donnelly, Corporate Engagement Manager, **IGCC**
Sophie Barnes, Corporate Senior Programme Manager, **IIGCC**
Kerri-Anne Hempshall, Benchmark Manager, Climate Action 100+, **PRI**
Jasna Selih, Senior Stewardship Specialist, **PRI**
Jude Otaibi, Stewardship Analyst, **PRI**
Lauren Keeley, Stewardship Analyst, **PRI**

Additional Contributors:

David Pitt-Watson, **CAAP**
Tracey Cameron, Director, Corporate Climate Engagement, **Ceres**
Peter Taylor, Corporate Programme Director, **IIGCC**
Ben Pincombe, Head of Stewardship, Climate Change, **PRI**
Livia Rossi, Senior Stewardship Specialist, **PRI**
Natasha Landell-Mills, Partner and Head of Stewardship, **Sarasin & Partners**

Table of Contents

1	Assessment structure	1
2	Climate Accounting and Audit Assessment framework and methodology	1
3	Assessment Framework	3
4	Climate Accounting and Audit Assessment – Methodology and Scoring Guidance	4
5	Annex: Climate Accounting and Audit Assessment scoring rules: traffic light system and score aggregation	15

Copyright Statement

Readers are allowed to reproduce material from Carbon Tracker reports for their own publications, as long as they are not being sold commercially. As copyright holder, Carbon Tracker requests due acknowledgement and a copy of the publication. For online use, we ask readers to link to the original resource on the Carbon Tracker website.

© Carbon Tracker 2023.

1 Assessment structure

Similar to the Benchmark Disclosure Framework, the Climate Accounting and Audit Assessment is divided into the following elements:

- **Indicator:** Specific area on which the company is being assessed. The overall Climate Accounting and Audit Assessment represents one indicator within the wider Benchmark framework and evaluates companies' (and their auditors') reporting of climate-related accounting and audit considerations.
- **Sub-indicator:** Component of an indicator that divides it into specific areas of interest. In the case of the Climate Accounting and Audit Assessment, the Sub-indicators are: 1 - financial statements, 2 - audit report, and 3 - alignment with net zero greenhouse gas (GHG) emissions by 2050 (or sooner) and no more than 1.5°C warming.
- **Metric:** The unit of measurement that separates each Sub-indicator into components, providing a more granular evaluation across the subject of attention. Unlike the other Benchmark Disclosure Indicators each Metric of the Accounting and Audit Assessment is scored using a traffic light system, as of 2023. A Metric is scored as 'Yes' when the methodology requirements are met, 'Partial' when the requirements are partially met, or 'No' when they are not met.

To illustrate – Metric 1.a focuses on whether the financial statements demonstrate how material climate-related matters are comprehensively incorporated. This will be assessed as 'Partial' when there is evidence of meaningful progress toward meeting the criteria (but they are not fully met). For example, simply referencing climate change or the energy transition with no further indication of **how** it was considered in the financials, for at least some of the material, relevant financial statement items, would still be assessed as 'No.'

Please note that while the overall Climate Accounting and Audit Assessment methodology has not changed this year, the metric-level scoring system has been [updated](#) since the provisional Climate Accounting and Audit Assessment methodology used in 2022, where the Metrics were assessed using a binary 'Yes' or 'No' scoring system. Prior assessments will not be recast using the new traffic light system.

2 Climate Accounting and Audit Assessment framework and methodology

2.1 Overview

The Climate Accounting and Audit Assessment is used to determine whether a company's financial statements (including the notes thereto), and the auditor's report thereon, reflect consideration of the effects of climate risk and the global move onto a 2050 (or sooner) net zero GHG emissions pathway and achieving the Paris Agreement goal of limiting global warming to no more than 1.5°C.

The first two Sub-indicators draw on existing globally recognised accounting and auditing standards, which require that any material climate-related matters (also referred to herein as 'climate matters') are taken into account when preparing financial statements and in the audits thereof. Company

financial statements and audit reports taking material climate-related matters into consideration can be deemed 'climate aware.'

Sub-indicator three is an incremental request by investors who expect that companies and auditors ensure visibility of how accelerating decarbonisation in line with achieving net zero GHG emissions by 2050 (or sooner) and no more than 1.5°C warming impacts a company's financial position and profitability. This Sub-indicator considers whether company's financial statements are 'net zero aligned'.

2.2 Scope of assessments

All Climate Action 100+ focus companies, apart from: companies that were added to the focus list as part of Phase 2 of the initiative;² focus companies with which engagement is currently paused;³ and certain rate-regulated utilities (see below for more detail); will be assessed against the Climate Accounting and Audit Assessment methodology in 2023.

Explanatory note on the exclusion of rate-regulated utility companies from the Climate Accounting and Audit Assessment:

As part of finalising the 2023 Climate Accounting and Audit Assessment methodology, utility companies whose fossil fuel-related assets are primarily associated with rate-of return-based regulation (herein, 'rate-regulated') will be excluded.⁴

The rationale is that the regulator of rate-regulated utility companies may allow these companies to recover the financial impacts of climate-related matters, such as the costs of impairing assets, or increases to annual depreciation due to the shortening of related asset lives, by passing them on to the rate payer (e.g., the end customer). In this way, the financial results of rate-regulated utility companies may not be impacted by climate in the same way as entities that are not rate-regulated, as the financial risk is more related to regulatory disallowance of costs associated with the continued operation of fossil-fuel related assets.

² The following companies were added to the Climate Action 100+ focus list in June 2023 as the initiative moved into its second phase: Ameren, Baoshan Iron & Steel Co Ltd, Carrefour, EOG Resources Inc, EQT Corporation, Honeywell Resources, JBS, Mitsubishi Heavy Industries Ltd., PBG Energy, SABIC, Samsung Electronics, Tata Steel and The Home Depot. These companies will only be assessed against the Net Zero Company Benchmark from 2024 onwards.

³ Please note that Climate Action 100+ signatory investors have paused active engagement with focus companies headquartered in Russia until further notice. Russian companies on the Climate Action 100+ focus list include: Gazprom PAO, Lukoil OAO, MMC Norilsk Nickel PJSC, PAO Severstal and Rosneft Oil Co.

⁴ Utility companies on the Climate Action 100+ focus list to which this applies are American Electric Power Company Inc., Constellation Energy Corp., Dominion Energy, Duke Energy Corporation, Exelon Corporation, FirstEnergy Corp., National Grid Plc, NextEra Energy Inc., PPL Corp., The Southern Company, WEC Energy Group Inc. and Xcel Energy Inc.

3 Assessment Framework

Sub-indicator 1 – Financial statements

Sub-indicator	The audited financial statements (including the notes thereto) incorporate material climate-related matters.
Text Metrics	<ul style="list-style-type: none"> a) The financial statements demonstrate how material climate-related matters are incorporated. b) The financial statements disclose the quantitative climate-related assumptions and estimates. c) The financial statements are consistent with the company’s other reporting.

Sub-indicator 2 – Audit report

Sub-indicator	The audit report demonstrates that the auditor considered the effects of material climate-related matters in its audit.
Text Metrics	<ul style="list-style-type: none"> a) The audit report identifies how the auditor has assessed the material impacts of climate-related matters. b) Any inconsistencies between the financial statements and ‘other information’ are identified in the audit report, where applicable.⁵

Sub-indicator 3 - Alignment with net zero greenhouse gas (GHG) emissions by 2050 (or sooner) and no more than 1.5°C warming

Sub-indicator	The audited financial statements (including the notes thereto) incorporate the material impacts of the global drive to net zero 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.
Text Metrics	<ul style="list-style-type: none"> a) The financial statements use, or disclose sensitivity analysis(es) to, assumptions and estimates that are aligned with achieving net zero GHG emissions by 2050 (or sooner). b) The audit report identifies that the assumptions and estimates that the company used in the financial statements or sensitivity analysis(es) were aligned with achieving net zero GHG emissions by 2050 (or sooner), or provides sensitivity analysis(es) on the potential implications.

⁵ “Where applicable” refers to when the assessors identify inconsistencies for information that is in the scope of the auditor’s consistency check.

4 Climate Accounting and Audit Assessment – Methodology and Scoring Guidance

Sub-indicator 1 – Financial statements

Sub-indicator	The audited financial statements (including the notes thereto) incorporate material climate-related matters.
Text Metrics	<ul style="list-style-type: none"> a) The financial statements demonstrate how material climate-related matters are incorporated. b) The financial statements disclose the quantitative climate-related assumptions and estimates. c) The financial statements are consistent with the company's other reporting.

Detailed Guidance

a) The financial statements demonstrate how material climate-related matters are incorporated.

To meet the requirements of this Metric, the company must either:

- clearly indicate how it incorporates the effects of climate matters into the financials, providing sufficient detail for an understanding of how climate matters relate to the accounting for material relevant items. Boilerplate wording is not sufficient; disclosures must be company specific; or
- if the company does not consider climate matters to be quantitatively material to its financial reporting, it must explain why, and how it considered this for the potentially relevant financial statement items.

Financial statements (which include the notes thereto) assessed as 'Yes' for this Metric will demonstrate the following characteristics:

- Clearly identify 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 some, this will include multiple assets and/or liabilities, or extend across several related items, such as fixed assets that have corresponding retirement obligations.
 - Consideration should incorporate not only transactions or events occurring in the current period, but also include longer-term considerations that impact current accounting and disclosure, for example, consideration of how climate impacts the estimates of future cash flows included in asset impairment tests, estimates of useful lives and residual values of long-term assets, and/or climate-related liabilities, contingencies or commitments.

Additional guidance

This Metric assesses how, under currently applicable accounting requirements, the company demonstrates comprehensive consideration of the financial effects of climate-related matters in preparing its financial statements. Such climate-related matters may include the physical impacts of climate change and/or transition impacts from climate mitigation on the company's market, sector, business environment, and drivers of its costs and revenues. It also includes the company's own response, for example any emissions targets set and the company's strategy on decarbonisation. Note that high level assertions akin to stating that climate had been considered, without more detailed disclosure explaining *how* it had been considered, would likely be assessed as 'No.'

Most Climate Action 100+ companies prepare their financial statements with reference to International Financial Reporting Standards (IFRS) (including local adoptions thereof) or US Generally Accepted Accounting Principles (US GAAP), as applicable. The relevant standard setters have made it clear that the effects of climate matters must be considered in preparing financial statements under IFRS and US GAAP.⁶

In addition to overall considerations, such as the company's ability to continue as a going concern, examples of relevant assets and liabilities that can be materially impacted by climate risk include (but are not limited to):

- property plant and equipment (PPE) assets;
- goodwill and other intangible assets;
- inventory;
- asset retirement or decommissioning obligations;
- deferred tax assets and liabilities;
- investments, including joint ventures and associates; and/or
- provisions and loss contingencies.

While accounting policy disclosure can incorporate some elements of how the company considers climate-related matters in its accounting, additional information relating to specific financial statement items is typically used to explain how those policies are applied in the current period. For example, disclosures that would contribute to meeting the requirements of this Metric include information as to how climate risk was considered in the context of:

- separate categories (or classes) of PPE assets and their exposure to climate risks (as well as impacts of achieving company targets), such as carbon-intensive PPE including: exploration and production assets related to fossil fuel reserves, productive assets used in the manufacture of fossil-fuel dependent inventory or products (for example internal combustion engines), or assets that are specific to processes that use fossil fuel-based raw materials or produce high levels of emissions (for example, production of cement or steel);
- depreciation of long-lived fixed assets by category/class: estimates of remaining asset lives/units of production and residual values, for example of oil, gas and coal-fired plants or airplanes or trucks that will be retired early to meet emissions targets, or a lessor's assets where it is assumed that the value will be partially recovered through sale at the end of the lease;

⁶ The following confirm the application of existing accounting requirements to consider climate matters: IFRS (and local adoptions thereof): [in-brief-climate-change-nick-anderson.pdf \(ifrs.org\)](#) and [Effects of climate-related matters on financial statements \(Republished July 2023\)](#); AASB-AUASB Joint Publication on Consideration of AASB Practice Statement 2 and its Application to Climate-related Disclosures; US GAAP: [FASB Staff Educational Paper—Intersection of Environmental, Social, and Governance Matters with Financial Accounting Standards \(March 19, 2021\)](#).

- impairment of fixed/intangible assets, or investments in joint ventures or associates, including indicators of impairment, estimates of future cash flows, and/or estimates of fair values. This may include climate-related drivers of sales, for example market risks associated with lower expected demand or sales prices, or higher expected regulatory, supply chain or other costs including those related to reducing the company's emissions. In addition to explaining how the forecast of cash flows takes account of climate related drivers, it may include explanations of why a forecast period of greater than five years is justified (under IFRS);
- decommissioning (asset retirement) costs: consideration of total costs of fulfilling these liabilities and impacts on their timeframes, and the extent to which the accounting criteria for recognising (recording) a liability has (or has not yet) been met;
- deferred taxes: the recoverability of deferred tax assets through estimates of future profits and how this relates to the amount included on the balance sheet, and on deferred tax liabilities, for example, how the pattern of liabilities relating to accelerated depreciation of PPE is affected by early retirements; and/or
- provisions and disclosure of commitments: for example, existing onerous contract liabilities, or contracts that will (or could) become onerous due to changing prices or under plans to meet emissions targets.

The above list is not intended to be exhaustive.

b) The financial statements disclose the quantitative climate-related assumptions and estimates.

To meet the conditions of this Metric, the company must disclose the quantitative climate-related assumptions and estimates that it uses in its financial statements.

The assumptions that are disclosed should be sufficiently comprehensive to provide a meaningful picture of climate-exposed amounts in the financial statements, in the context of the company's climate risks, emissions targets and strategy.

It should also be clear how the assumptions and estimates can be understood in the context of the associated accounting amounts; their use in relation to reported asset, liability, and earnings amounts should be made clear.

Additional guidance

Disclosure of the actual quantified climate-sensitive assumptions and estimates (inputs) used in the financial statements can provide further evidence of the extent to which the effects of climate matters were (or were not) incorporated into the relevant inputs. It can also help investors assess resilience and make appropriate adjustments. It provides a starting point for quantitatively assessing risk associated with assumptions and estimates made in the current financial statements and considering the financial impact of further climate-related developments.

This Metric is assessed independently from Metric 1.a on how the company has considered climate matters. Accordingly, whether a company included the impacts of climate on the related assumptions and estimates is not part of the assessment for this Metric.

The assumptions and estimates will often relate to longer-term assumptions and estimates that are exposed to climate matters, such as estimates of future cash flows used in impairment testing

of long or indefinite-lived assets.

Examples of climate-related assumptions and estimates that would contribute to meeting the requirements of this Metric include, but are not limited to, quantification of:

- assumptions used to estimate the expected future cash flows used in impairment testing or fair value estimates, including:
 - projected interim and long-term commodity prices and volume assumptions used in forecasting revenues, for example oil, gas and coal prices;
 - estimated CO₂ prices used in forecasting costs, and the portion assumed to be passed on to customers (where relevant);
 - estimated costs of carbon capture, usage and storage, or of other potential mechanisms (e.g., carbon offsets, operational improvements) that the company intends to use to reduce overall emissions from the use of existing assets in planned activities; and/or
 - estimates of other program costs for steps to be taken toward achieving targets, for example R&D costs to develop new low-carbon technologies or to update equipment and processes, or incremental costs of collaborating with suppliers and end users to reduce emissions;
- cash flow growth rates (and any relevant adjustments thereto) or alternatively, adjustments to the discount rates applied in estimating recoverable values or fair values;
- the remaining useful lives/units of production, particularly of climate-exposed assets such as those used in fossil fuel exploration and production, those powered by internal combustion engines (ICEs), or used in manufacturing emissions-intensive products (such as ICE vehicles);
- the assumptions used to estimate the residual values of assets, for example an assumption of X% of the original cost of the asset, and similarly, the assumptions used to estimate the collateral value of financial assets supported by carbon-intensive collateral (such as ICE vehicles);
- the prices and volumes of activities used to determine onerous contracts (such as fossil fuel-based take-or-pay contracts); and/or
- the discount rates, and undiscounted estimated costs and their timing, used to calculate the liabilities that are recognised (recorded) for asset retirement/ decommissioning obligations.

Additionally, it is helpful for companies with asset retirement/decommissioning obligations that have not yet been recognised (recorded) on the balance sheet as a liability to also disclose: a) total estimated costs, at the balance sheet date, of fulfilling the unrecognised asset retirement/decommissioning obligations; and b) the carrying amounts of the related assets. However, not disclosing this information does not yet preclude a company from achieving a 'Yes' (or 'Partial') on this Metric.

Information covered under this Metric also includes sufficient identification/disaggregation of the associated financial statement asset and liability amounts. This is needed at a level that enables an understanding of the climate-related assumptions and estimates disclosed, in the context of the relevant financial statement amounts. For example, a breakdown of climate-exposed PPE by relevant segment or classes should enable investors to assess the financial relevance of assumptions made on the remaining useful lives of those assets.

c) The financial statements are consistent with the company's other reporting.

This Metric builds on the assessment of Metric 1.a, to ensure that the financial statements also adequately reflect the climate-related risks, strategies 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, TCFD⁷ reporting, analyst presentations, and on the company's website.

To be assessed as 'Yes' for this Metric, the company must have been assessed as 'Yes' for Metric 1.a. To be assessed as 'Partial' for this Metric, the company must have been assessed as 'Yes' or 'Partial' for Metric 1.a.

If the company considers inconsistencies between its other reporting on climate risks and emissions targets and the financial statements to be immaterial, or has a reason for using different assumptions or estimates "outside" versus within the financial statements, it is expected to disclose this conclusion and the basis for it.

Additional guidance

The aim of this Metric is to assess whether the financial statements reflect the company's other reporting on climate matters, for example on risks and strategy/targets, made outside of the financial statements. This Metric focuses on the financial statements. The company's other reporting on climate-related matters will be read as it provides the context for assessing the financial statements, but it is not assessed.

Topics that are discussed in reporting outside of the financials, such as climate risks and strategies or targets to reduce emissions, all have the potential to drive accounting consequences, for example the value of assets and liabilities and a company's profitability. Regulators also require a level of consistency in company reporting, for example to ensure that there is no material misstatement in the financial statements.⁸

The financial statement information identified in assessing Metrics 1.a and 1.b will be considered in order to assess the extent to which the company demonstrates consideration of the other information outside of the financial statements in preparing its financial statements.

Examples of how companies might demonstrate consistency include, but are not limited to, how the company considered:

- the financial effects of climate-related risks identified by the company, such as the impacts of physical risks of changing weather patterns on a company's manufacturing facilities or supply chain, and/or transition risks including changes to regulation, reduced demand, or changes to product mix, and their timing in relation to useful lives of relevant assets or assumptions used to value those assets;

⁷ Task Force on Climate-related Financial Disclosures.

⁸ For example: [UK Financial Reporting Council: Corporate Reporting Review Thematic review of climate-related metrics and targets \(July 2023\)](#). The SEC staff also expect that "forecasts made for [impairment testing] purposes be consistent with other forward-looking information prepared by the company." (see [SAB Topic 5.CC, Codification of Staff Accounting Bulletins - Topic 5: Miscellaneous Accounting \(sec.gov\)](#)). Coherence between the financial statements and the management commentary is also one of the fundamental building blocks of the International Accounting Standards Board's (IASB's) best practice guidance for narrative reporting that accompanies IFRS financial statements. See [Management Commentary \(ifrs.org\)](#). Additionally, the International Sustainability Standards Board (ISSB) has highlighted the need for connectivity of company reporting in *IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information* and *IFRS S2 Climate-related Disclosures*, both of which were issued on 26 June 2023. The European Commission has released a draft of its first set of [draft European Sustainability Reporting Standards \(ESRS\)](#).

- use of the same commodity or carbon prices in the financials as those that are used for planning and investment decisions;
- incorporation of the extent to which the company expects to use carbon offset technologies to meet its commitments, and the expected timing and costs of investing in such technologies, in impairment cash flow forecasts; and
- the effects of the company's own emissions targets and steps described in its decarbonisation strategy on the estimated remaining useful lives of its high emissions assets.

Specific confirmation of how elements of risk and/or emissions targets have been considered may also help provide linkage, for example through cross references, or explicit confirmation of what has been included in best estimates of cash flows or other accounting considerations.

Interconnected impacts, such as between shortened asset lives, impairments and asset retirement obligations, may also provide a consistent picture. For example, disclosure of how the timeframe used to calculate asset retirement obligations aligns with the remaining useful lives of relevant assets, and with the timing of transition risks and company targets.

The use of different quantitative assumptions or estimates (inputs) will not be considered inconsistent for this Metric if the company makes clear why the other information disclosed outside of the financial statements differ from inputs that meet the accounting requirements. For example, a company may use certain oil, gas or carbon prices to test the resilience of its portfolio to a low-carbon scenario and disclose this in its sustainability report. If management's best estimate is that these same prices are unlikely to occur given certain policy or regulatory measures, the company may have used different prices in its financial statements. A company may also use more challenging assumptions in its new product approval process, for example more punitive carbon costs than it expects to arise, in order to shift its new product approvals toward lower carbon initiatives. In such circumstances, the company would be expected to clearly explain the differences in its reporting.

It is helpful, but not sufficient to achieve a 'Yes' on this Metric, if the company explains actual inconsistencies related to an incomplete consideration of climate-related matters in the financial statements. For example, the company may explain that thus far, consideration of some matters in the financial statements has been more limited than the scope of the risk or target described in other reporting. Such limitations may relate to having only considered accounting implications related to a particular timeframe (i.e. a three-year business forecast period), or to particular asset classes, geographic locations, or business units. Limitations may also relate to the company having only considered certain targets or certain steps to meeting targets. Exclusions from full consideration on these or similar bases will result in an assessment of 'No' or 'Partial' until the company completes its consideration.

Sub-indicator 2 – Audit report

Sub-indicator	The audit report demonstrates that the auditor considered the effects of material climate-related matters in its audit.
Text Metrics	<p>a) The audit report identifies how the auditor has assessed the material impacts of climate-related matters.</p> <p>b) Any inconsistencies between the financial statements and ‘other information’ are identified in the audit report, where applicable.⁹</p>

Detailed Guidance

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

This Metric is based on the expectation that for Climate Action 100+ 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.¹⁰ 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 how the auditor addressed 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.

Additional guidance

This Metric assesses how, under current auditing requirements, the auditor demonstrates consideration of the financial effects of climate matters in its audit of the company’s financial statements. Most audits of the financial statements of Climate Action 100+ companies are conducted under International Standards on Auditing (ISAs) (including local adoptions thereof) or U.S. Public Company Accounting Oversight Board Auditing Standards (PCAOB standards).¹¹

Where auditors provide two audit reports, such as a local report under home-country ISA-based standards and another under US PCAOB requirements, both reports are reviewed but it is the local version that is scored for this assessment.

The accounting topics considered in Sub-indicator 1 are also relevant to the auditor’s consideration

⁹ “Where applicable” refers to when the assessors identify inconsistencies of information that is in the scope of the auditor’s consistency check.

¹⁰ See: [International Standard on Auditing \(ISA\) 701, Communicating Key Audit Matters in the Independent Auditor’s Report](#) and [AS 3101, The Auditor’s Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion](#).

¹¹ In addition to the accounting standard setters having made it clear that financial statements must include the effects of climate matters, the International Auditing and Assurance Standards Board (IAASB) has made clear that the effects of material climate-related matters must be considered in auditing company financial statements. See [“The Consideration of Climate-Related Risks in an Audit of Financial Statement \[sic\].”](#) The PCAOB has not published its own clarifications about addressing climate risks in audits but in 2022 its focus team was also looking into these issues. See [Spotlight: Staff Overview for Planned 2022 Inspections](#).

of climate as reported in the K/CAMs. The climate-relevant discussions in the K/CAMs should provide:

- a description of the significant climate-related inputs and complex judgments around these inputs, including how specific climate-related risks and/or company commitments affect consideration of these inputs; and
- the methods and procedures used for audit testing, when applicable.

Examples of how audit reports might incorporate information on how climate was considered include, but are not limited to, disclosure that:

- clearly identifies the climate matters that formed part of the auditor's consideration (e.g., changes to regulations or the company's strategy or planning to include consideration of emissions targets), and the accounting topics to which they relate;
- discusses the work and testing performed, including how the auditor assessed the effects of climate matters on inputs used in the company's accounting (such as cash flow estimates used in impairment testing and assessing the underlying commodity price assumptions against external credible long-term climate scenarios, with reference to the scenarios that the auditor used);
- indicates whether the estimates or judgements appropriately reflect the effects of material climate-related risks and the company's climate-related commitments, when applicable, and how the auditor assessed this. For example, descriptions could include how the energy transition assumptions that the company used in its planning and impairment testing reflected the company's emissions reduction commitments and relevant costs of carbon, or whether the useful lives of the company's productive assets are reasonable given the company's emissions reduction targets and the pace of the energy transition;
- describes how the auditor assessed the company's long-term assumptions and estimates against identified third-party credible climate scenarios or other sector specific sources (when applicable); and/or
- describes the type of external, independent third-party information used, or the use of a climate-related specialist by the auditor.

b) Any inconsistencies between the financial statements and 'other information' are identified in the audit report, where applicable.¹²

If Metric 1.c is assessed as 'Yes' because the company appears to present a consistent narrative across its reporting, then this Metric will also likely result in a 'Yes' for the auditor.

If Metric 1.c is assessed as 'Partial' or 'No' and:

- the information that is inconsistent is in the company's other reporting that is subject to a consistency review by the auditor, then Metric 2.b can still be 'Yes' or 'Partial' if the auditor has drawn attention to some or all of the discrepancy(ies). 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.'

¹² "Where applicable" refers to when the assessors identify inconsistencies for information that is in the scope of the auditor's consistency check.

Additional guidance

An inconsistency between the discussion of climate matters outside the financial statements and consideration in the financials could mean a material misstatement of information in one or both of these components of reporting.

This Metric assesses the *auditor's consistency check*. It is based on the requirement for the auditor to read certain 'other information' provided by the company outside of the financial statements for consistency with the audited financial statements. Information that comprises such 'other information' is specified under the relevant auditing standards.¹³

The 'other information' may be a subset of the company's other reporting that is assessed for consistency under Metric 1.c. This Metric is assessed as relating to either:

- the scope of reporting that is identified in the audit report; or
- if this is not stated (as is often the case in reports produced under PCAOB standards), it is assumed to include the information within the same document as the audited financial statements, for example within the Form 10-K of a US SEC registered company.

¹³ PCAOB standards generally limit the review to information in the same filing as the financials. In contrast, IAASB guidance states that if climate-related information is presented outside the annual report, "it may be important to determine whether the document containing the climate-related information nevertheless forms part of the annual report as defined for purposes of ISA 720 (Revised). 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." See [The Consideration of Climate-Related Risks in an Audit of Financial Statement \[sic\], ISA 720 \(Revised\), The Auditor's Responsibilities Relating to Other Information, and AS 2710: Other Information in Documents Containing Audited Financial Statements](#).

Sub-indicator 3 - Alignment with net zero greenhouse gas (GHG) emissions by 2050 (or sooner) and no more than 1.5°C warming

Sub-indicator	The audited financial statements (including the notes thereto) incorporate the material impacts of the global drive to net zero 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.
Text Metrics	<p>a) The financial statements use, or disclose sensitivity analysis(es) to, assumptions and estimates that are aligned with achieving net zero GHG emissions by 2050 (or sooner).</p> <p>b) The audit report identifies that the assumptions and estimates that the company used in the financial statements or sensitivity analysis(es) were aligned with achieving net zero GHG emissions by 2050 (or sooner), or provides sensitivity analysis(es) on the potential implications.</p>

Detailed Guidance

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

This Metric requires that the company either uses assumptions and estimates that are in line with a net zero GHG emissions by 2050 (or sooner) pathway, or provides a separate sensitivity analysis for each material, relevant financial statement item using such assumptions and estimates (i.e., quantitative sensitivity analysis).

Additional guidance

This Metric builds on material and relevant financial statement items, and assumptions and estimates used in preparing the financial statements, as assessed in Sub-indicator 1. It focuses upon the use of assumptions and estimates that can be assessed as appropriate ‘best estimates’ relative to relevant price decks or published scenario assumptions that are aligned with the goal of achieving net zero GHG emissions by 2050 (or sooner) (‘aligned assumptions and estimates’).

Currently, the [International Energy Agency’s Net Zero by 2050 scenario \(IEA NZE\)](#) and related price deck are used for this assessment, where applicable. However, additional updated reference scenarios may become available over time.

Aligned assumptions and estimates used in the financial statements should be complete relative to a company’s business. For example, the use of aligned commodity prices and product demand may not be sufficient; estimates of the costs and effectiveness of carbon capture technologies, and the costs of carbon or other undertakings that are significant to achieving net zero, may be needed to complete the picture.

Alternatively, if the company has provided quantitative sensitivity analysis(es) it should:

- disclose the carrying amount of the material and relevant financial statement items (assets and liabilities) for each sensitivity analysis provided (this could include zero balances, for

example unrecognised amounts of asset retirement/ decommissioning obligations or potentially onerous contracts);

- use aligned assumptions and estimates and disclose their quantitative amounts;
- provide the reasons for choosing the assumptions and estimates that it used in performing the sensitivity analysis(es); and
- provide the quantitative result of each sensitivity analysis.

Disclosure of this information can be aggregated at a meaningful level (e.g., by the same activity or segment) for individual assets or liabilities tested for sensitivity to the same aligned assumptions and estimates.

To meet the requirements of this Metric, each separate sensitivity analysis must have aligned, at a minimum, the single assumption or estimate that, if used in preparing the financial statements, would have had the most significant impact on the carrying amount of the asset or liability on the balance sheet.

b) The audit report identifies that the assumptions and estimates that the company used in the financial statements or sensitivity analysis(es) were aligned with achieving net zero GHG emissions by 2050 (or sooner), or provides sensitivity analysis(es) on the potential implications.

If Metric 3.a is assessed as 'Yes,' then for this Metric to be assessed as 'Yes,' the auditor should have assessed, as part of its audit work, whether the relevant assumptions and estimates used in the financial statements (or used in the company's sensitivity analysis(es)) are 'aligned assumptions and estimates,' 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 3.a 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 have been, and provided sensitivity analysis(es) of material and relevant financial statement items using those assumptions and estimates.

Additional guidance

This Metric is independent of Metric 3.a, as the auditor is asked to take an independent role in assessing the assumptions and estimates used by the company (either directly or through sensitivity analysis(es)), or to provide its own sensitivity analysis(es). In doing so, the auditor should follow the additional guidance provided in Metric 3.a.

5 Annex: Climate Accounting and Audit Assessment scoring rules: traffic light system and score aggregation

Each Metric is assessed using a traffic light system ('Yes,' 'No' or 'Partial') based on information and evidence published by the company (and its auditor), and the extent to which this has met the requirements of the criteria described in this methodology document.

Aggregation shown for the published Benchmark at the Sub-indicator and Assessment levels then use the following system (consistent with the aggregation used for the other Benchmark Disclosure Indicators):

Yes	When all Metrics for a Sub-indicator or Indicator are 'Yes.'
No	When all Metrics for a Sub-indicator or Indicator are 'No.'
Partial	All other combinations of Metrics individually assessed as 'Yes,' 'No' and/or 'Partial.'

5.1 Assessment combinations for the Climate Accounting and Audit Assessment

Assessment text

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

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

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

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

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

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

Metric b: Any inconsistencies between the financial statements and 'other information' are identified in the audit report, where applicable.

Sub-indicator 3 - Alignment with net zero greenhouse gas (GHG) emissions by 2050 (or sooner) and no more than 1.5°C warming. The audited financial statements (including the notes thereto) incorporate the material impacts of the global drive to net zero 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.

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

Metric b: The audit report identifies that the assumptions the company used in the financial statements or sensitivity analysis(es) were aligned with achieving net zero GHG emissions by 2050 (or sooner), or provides sensitivity analysis(es) on the potential implications.

Contingency - To be assessed as 'Yes' for Metric 1c, the company must have been assessed as 'Yes' for Metric 1a. To be assessed as 'Partial' for Metric 1c, the company must have been assessed as 'Yes' or 'Partial' for Metric 1a.

The three Sub-indicators of the Climate Accounting and Audit Assessment have either two or three Metrics (a, b, and c). The following tables illustrate example combinations for the three Sub-indicators.

Sub-indicator 1

Metric 1a	Metric 1b	Metric 1c	Sub-indicator assessment
Y	Y	Y	Y
Y	Y	Partial	Partial
Y	Y	N	Partial
Y	Partial	Y	Partial
Y	Partial	Partial	Partial
Y	Partial	N	Partial
Y	N	Y	Partial
Y	N	Partial	Partial
Y	N	N	Partial
Partial	Y	Partial	Partial
Partial	Y	N	Partial
Partial	Partial	Partial	Partial
Partial	Partial	N	Partial
Partial	N	Partial	Partial
Partial	N	N	Partial
N	Y	N	Partial
N	Partial	N	Partial
N	N	N	N

Sub-indicators 2 and 3

Metric 2a/3a	Metric 2b/3b	Sub-indicator assessment
Y	Y	Y
Y	Partial	Partial
Y	N	Partial
Partial	Y	Partial
Partial	Partial	Partial
Partial	N	Partial
N	Y	Partial
N	Partial	Partial
N	N	N

The same approach to aggregation applies to the overall Assessment.

Yes	When all three Sub-indicators are 'Yes.'
No	When all three Sub-indicators are 'No.'
Partial	All other combinations

Overall assessment

Sub-indicator 1	Sub-indicator 2	Sub-indicator 3	Overall assessment
Y	Y	Y	Y
Y	Y	Partial	Partial
Y	Y	N	Partial
Y	Partial	Y	Partial
Y	Partial	Partial	Partial
Y	Partial	N	Partial
Y	N	Y	Partial
Y	N	Partial	Partial
Y	N	N	Partial
Partial	Y	Y	Partial
Partial	Y	Partial	Partial
Partial	Y	N	Partial
Partial	Partial	Y	Partial
Partial	Partial	Partial	Partial
Partial	Partial	N	Partial
Partial	N	Y	Partial
Partial	N	Partial	Partial
Partial	N	N	Partial
N	Y	Y	Partial
N	Y	Partial	Partial
N	Y	N	Partial
N	Partial	Y	Partial
N	Partial	Partial	Partial
N	Partial	N	Partial
N	N	Y	Partial
N	N	Partial	Partial
N	N	N	N

Disclaimer

Carbon Tracker is a non-profit company set up to produce new thinking on climate risk. The organisation is funded by a range of European and American foundations. Carbon Tracker is not an investment adviser and makes no representation regarding the advisability of investing in any particular company or investment fund or other vehicle. A decision to invest in any such investment fund or other entity should not be made in reliance on any of the statements set forth in this publication. While the organisations have obtained information believed to be reliable, they shall not be liable for any claims or losses of any nature in connection with information contained in this document, including but not limited to, lost profits or punitive or consequential damages. The information used to compile this report has been collected from a number of sources in the public domain and from Carbon Tracker licensors. Some of its content may be proprietary and belong to Carbon Tracker or its licensors. The information contained in this research report does not constitute an offer to sell securities or the solicitation of an offer to buy, or recommendation for investment in, any securities within any jurisdiction. The information is not intended as financial advice. This research report provides general information only. The information and opinions constitute a judgment as at the date indicated and are subject to change without notice. The information may therefore not be accurate or current. The information and opinions contained in this report have been compiled or arrived at from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made by Carbon Tracker as to their accuracy, completeness or correctness and Carbon Tracker does also not warrant that the information is up-to-date.

To know more please visit:

www.carbontracker.org

@carbonbubble