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Authors of this research report

Dr Jean You, UNSW Sydney Yi She, Independent Professor Roger Simnett, Deakin University Associate Professor Shan Zhou, University of Sydney

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Enquiries

Australian Accounting Standards Board Auditing and Assurance Standards Board PO Box 204 Collins Street West, Victoria, 8007 Australia

Tel: +61 3 8080 7400

Email:

AASB standard@aasb.gov.au; AUASB enquiries@auasb.gov.au

Website: AASB <u>www.aasb.gov.au</u>; AUASB <u>www.auasb.gov.au</u>

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Foreword from AASB & AUASB

We are pleased to present this updated research report on climate-related disclosures and assurance in the annual reports of ASX-listed entities. This joint effort by the Australian Accounting Standards Board (AASB) and Auditing and Assurance Standards Board (AUASB) reflects our shared commitment to advancing high-quality reporting and assurance in Australia.

Authored by Dr Jean You, Yi She, Professor Roger Simnett, and Associate Professor Shan Zhou, this report builds on the earlier work of You and Simnett (2022, 2023). It examines the climate disclosure practices of ASX-listed entities in 2023 and 2024, a critical period ahead of the implementation of AASB S2 and ASSA 5000. While the dataset covers all ASX-listed entities, the focus is on Groups 1, 2, and 3 — those facing mandatory reporting and assurance requirements.

We believe this research offers timely insights for the AASB, AUASB, and stakeholders as we navigate the challenges of climate-related reporting. We extend our sincere thanks to the authors for their valuable contribution, reinforcing the important role academic research plays in shaping best practices and supporting standard-setting.

Dr Keith KendallDoug NivenChairChairAustralian Accounting Standards BoardAuditing and Assurance Standards Board

Foreword from Chartered Accountants Australia & New Zealand (CA ANZ)

Chartered Accountants Australia and New Zealand (CA ANZ) represents over 140,000 financial professionals, supporting them to make a difference to the businesses, organisations and communities in which they work and live. The depth and breadth of their expertise and evidence-based approach helps them to see the big picture and chart the best course of action.

This is why Chartered Accountants are so well equipped to support organisations to prepare for mandatory climate related financial disclosures which will be required to be assured by a Registered Company Auditor. The introduction of this mandatory reporting is one of the most significant changes to the corporate reporting system in a generation. It will also satisfy Australian investors who have increasingly demanded reliable and consistent reporting on climate and sustainability – with dependable assurance being key to increasing confidence in the reporting.

This research provides valuable evidence of the preparedness of reporting entities for mandatory climate-related disclosures and helps identify issues on which additional guidance may be needed. It is also pleasing to note the report's findings of a year-on-year increase in the incorporation of climate related financial information in Annual Reports of listed entities, with both increased limited and reasonable assurance across all groups and industries, not just climate sensitive industries.

Along with the Australian Accounting Standards Board and the Auditing and Assurance Standards Board we are pleased to support the research team in producing what we believe is a very important and timely report.

Ainslie van Onselen Chief Executive Officer

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Executive Summary

Building off the research reports of You and Simnett (2022, 2023), this research report examines the Annual Report disclosure practices of climate-related reporting of Australian listed entities in 2023 and 2024, the lead-up to AASB S2 and ASSA 5000 coming into effect. We focus on the Annual Reports given that the requirements will be reflected in the Annual Reports. Our data collection covers all ASX-listed entities for which data is available, but we specifically focus on listed entities in Groups 1, 2 and 3, as these are the ones facing mandatory reporting requirements. As such, the research findings provide considerations for the AASB and AUASB in the implementation of mandatory climate-related reporting and assurance.

One of the limitations with our research of Annual Report disclosures is that at the time of data collection (February 2025) 2024 Annual Reports for some reporting entities are either not completed, or for some not available in a searchable form. This has resulted in 1,955 searchable Annual Reports for 2023 and 874 for 2024. To report meaningful trends, we therefore concentrate our analysis and discussion on percentages relating to climate-related reporting or assuring in 2024 compared with 2023, as well as reporting on a matched-entity sample in footnotes, where we report trends for those 819 entities whose Annual Reports are analysed for both 2023 and 2024.

Overall Findings

Climate-Related Disclosures in Annual Reports - Overall Trend

Australian listed entities are increasingly incorporating climate-related information in their Annual Reports, with the overall disclosure rate rising from 48.4% in 2023 to 67.4% in 2024. This growth is evident across all groups and industries, highlighting a broad shift toward enhanced climate reporting (see Section 2 for details).

The vast majority of Group 1 listed entities are now reporting climate-related information in their Annual Reports (over 90%, see Section 2.1 for details), and we are seeing increases across all groups of listed entities (including Group 2, Group 3, and those listed entities not meeting group status).

While climate-sensitive industries remain more likely to disclose climate-related information, increases have been observed across all industry groups (see Section 2.2 for details).

Climate-Related Disclosures in Annual Report: Alignment with AASB S2

There is an increasing percentage of listed entities referencing Australian Sustainability Reporting Standards or IFRS Sustainability Disclosures Standards in Annual Reports—from 12.6% in 2023 to 18.3% in 2024. The adoption of the reporting structure outlining the four areas of core content outlined in AASB S2 has increased over the past two years, increasing from 7.9% to 12.7% (see Section 3.1 for details).

Scenario analysis in Annual Reports remains low among listed entities disclosing climate-related information in Annual Reports (disclosers hereafter) but has increased from 7.1% in 2023 to 11.7% in 2024, aligning more closely with the AASB S2 mandatory climate reporting requirements. The majority relates to global warming/temperature changes, and most referenced scenarios including 1.5°C and 2°C in the Paris Agreement, Representative Concentration Pathways (RCP) scenarios and Shared Socioeconomic Pathways (SSPs) scenarios. Regarding the number of climate-related scenarios reported on, listed entities are more likely to analyse three scenarios in both years (see Section 3.2 for details).

The proportion of listed entities disclosing Scope 1, Scope 2, and Scope 3 greenhouse gas (GHG) emissions has seen an upward trend from 2023 to 2024. However, the percentage of listed entities disclosing Scope 3 GHG emissions is approximately half of those reporting Scope 1 and Scope 2 emissions (see Section 3.3 for details).

Climate-Related Incentives in Remuneration Reports

The percentage of disclosers disclosing climate-related incentives or performance assessments in their Remuneration Reports grows from 9.9% in 2023 to 14.6% in 2024, indicating a rising emphasis on climate-focused executive compensation (see Section 4 for details).

Among disclosers, Group 1 listed entities are more likely to incorporate climaterelated incentives or performance assessments in executive remuneration, relative to other listed entities (see Section 4.1 for details).

More than half of the climate-related incentives are related to carbon emissions, including Scope 1, 2 and 3 GHG emissions and other factors such as emission intensity reduction. Listed entities also incorporate other climate-related factors such as climate project delivery, climate reporting, and climate risk management, into executive compensation structures (see Section 4.2 for details).

Climate-Related Disclosures in the Notes to the Financial Statements

The inclusion of climate-related information in the Notes to the Financial Statements has risen from 17.5% in 2023 to 23.3% in 2024, highlighting the growing awareness among Australian listed entities of climate-related financial impacts (see Section 5 for details).

Among all disclosers, Group 1 listed entities have the highest rate of disclosing climate-related information in their Notes to the Financial Statements, relative to other listed entities (see Section 5.1 for details).

The most frequent note containing climate-related information for both years is Accounting policies, judgments or basis of preparation, increasing from 47.0% of entities with climate-related disclosures in their Notes to the Financial Statements in 2023 to 54.0% in 2024. Meanwhile, climate-related keywords in the auditor's remuneration note has experienced the most significant increase, almost doubling over the period (see Section 5.2 for details).

Climate-Related Disclosures in the Auditors' Report on the Financial Statements

A small number of Auditor's Reports, mostly issued by the Big 4, have included climate-related impacts in the Key Audit Matters (KAMs) section, rising slightly from 2.5% in 2023 to 2.9% in 2024. Most of the climate-related KAMs topics are related to *Asset valuation*, and auditors are more likely to mention climate-related information in audit procedures in KAMs. 83.3% of the listed entities receiving KAMs with climate-related disclosures in 2023 have climate-related information retained in 2024 (see Section 6.1 for details).

Additionally, the percentage of auditors incorporating climate-related information into other sections of the Auditor's Report has increased from 0.7% in 2023 to 2.2% in 2024, such as *Other Information* section and *Basis for Opinion* section. This reflects a gradual integration of climate considerations into the audit of Financial Reports (see Section 6.2 for details).

Assurance Engagements on Climate-Related Information Referenced in Annual Reports

Climate-related assurance engagements referenced in Annual Reports are expanding, with more listed entities referencing third-party assurance engagements and including Independent Assurance Reports (Assurance Reports hereafter). Group 1 listed entities have the highest percentage of such references and inclusion. The Big 4 firms remain dominant.

More Assurance Reports now explicitly cover Scope 1 and Scope 2, and/or Scope 3 GHG emissions in 2024.

While limited assurance is still the most common, the use of both limited and reasonable assurance has increased in 2024. It is a positive step towards the reasonable assurance of climate-related disclosures by 2030, as outlined in ASSA 5010 *Timeline for Audits and Reviews of Information in Sustainability Reports under the Corporations Act 2001* (AUASB 2025a). All Assurance Reports issued unqualified opinions, with fewer *Emphasis of Matter* or *Other Matters* paragraphs in 2024 than in 2023.

ISAE/ASAE 3000 and 3410 remain the assurance standards primarily referred to. Although the use of self-developed reporting criteria declines in 2024, it remains the most common reporting approach, often combined with frameworks like the GHG Protocol, Global Reporting Initiative (GRI), and National Greenhouse and Energy Reporting (NGER) scheme. These trends indicate a shift toward more standardised and rigorous climate-related assurance practices (see Section 7 for details).

1. Methodology

This research report builds upon the earlier AASB/AUASB research conducted by You and Simnett (2022, 2023), which examined climate-related disclosures in Annual Reports by Australian listed entities and associated audit/assurance practices from 2018 to 2022. The report extends this analysis to assess climate-related disclosures and assurance with a focus on compliance with AASB S2 (AASB 2024) and ASSA 5000 (AUASB 2025b).

AASB S2 Climate-related Disclosures establishes disclosure obligations for entities to report climate-related risks and opportunities to their primary users of general-purpose Financial Reports. As required by Australia's sustainability reporting regime, disclosing entities should lodge their Sustainability Report (with climate-related disclosures mandated by AASB S2) with the Australian Securities and Investments Commission (ASIC), as a part of the Annual Reports (ASIC 2025). As such, the Sustainability Report is the fourth report required as part of these entities' annual reporting obligations under the requirements in the Corporations Act 2001, alongside Financial Report, Directors' Report and Auditor's Report. With this in mind, this research report examines climate-related disclosures and assurance practices within Annual Reports of Australian listed entities.¹

We obtain our sample from the Connect4 database, which enables textual searches within Annual Reports issued by all ASX-listed entities. As at the time of data collection for this report (February 2025), the Connect4 database provides 1,955 searchable Annual Reports for 2023 and 874 for 2024, totaling 2,829 Annual Reports.²

To identify climate-related disclosures in Annual Reports, we search a list of climate-related keywords following a dictionary developed from ASIC (2018) and You and Simnett (2023).³ Section 2 reports on the overall climate-related disclosures in Annual Reports. Once we identify the climate-related disclosures in Annual Reports, we

¹ We define Annual Reports as the reporting package that organisations are required to deliver under the corporate, compliance or securities laws of the country in which they operate. As such, in accordance to Chapter 2M Corporations Act 2001, we focus on climate-related disclosures in Annual Reports (which contain the audited financial results), and disclosures contained in the associated Appendix 4G Corporate Governance Statement (CGS), which is required under the reporting framework of the ASX Listing Rules, irrespective as to whether it is contained in Annual Reports or not.

² Due to the variation in the number of reports available between 2023 and 2024, we construct a matched-entity sample for comparability. 819 entities are identified which have Annual Reports available for both 2023 and 2024, and this becomes a matched-entity sample of 1,638 company-year observations.

³ The climate-related keywords we search are as follows: "climate change", "global warming", "carbon emission", "greenhouse gas", "climate risk", "carbon risk", "CO2", "climate related", "climate-related", "climate strategy", "TCFD", "climate resilience", "climate active", "climate active", "GRI", "scope 1", "scope 2", "scope 3" and "carbon footprint". We manually review the search results and exclude non-climate related disclosures—such as those related to product names, subsidiary names, or director experience.

further examine the alignment of climate-related disclosures in Annual Reports with AASB S2 (Section 3), climate-related incentives reported in Remuneration Reports (Section 4) and the Notes to the Financial Statements (Section 5). From an assurance perspective, we investigate the nature and extent of climate-related disclosures in Auditor's Reports on the Financial Reports (Section 6). With ASSA 5000 effective from 2025, we also examine the references in Annual Reports to assurance engagements on climate-related information and inclusion of Assurance Reports on climate-related information in Annual Reports (Section 7).

2. Climate-Related Disclosures in Annual Reports – Overall Trend

Figure 1 illustrates the growing trend of the percentage of climate-related disclosers. The percentage of disclosers increases from 48.4% in 2023 to 67.4% in 2024⁴, reflecting an increased recognition among Australian listed entities of the importance of disclosing climate-related impacts. We further break down the climate-related disclosures by group with phases of mandatory reporting and assurance requirements (see Section 2.1) and industry (see Section 2.2).

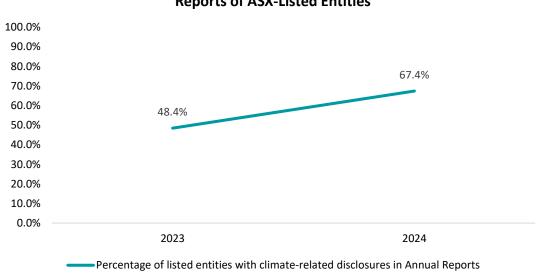


Figure 1: Overview of Climate-Related Disclosures in Annual Reports of ASX-Listed Entities

(62.1%) in 2023 to 558 (68.1%) in 2024.

⁴ In our matched-entity sample of the 819 entities which have Annual Reports available for both 2023 and 2024, a growing number of listed entities report climate-related information in their Annual Reports, increasing from 509

2.1 Climate-Related Disclosures by Group

We first examine the climate reporting in Annual Reports based on group with phases of implementation of AASB S2 and ASSA 5000 (with the timeline specified in ASSA 5010). We define the group of entities as per section 292A of the Corporations Act 2001 based on their financial data and NGER reporting status⁵. We identify 298 Group 1 listed entities, 135 Group 2 listed entities, 489 Group 3 listed entities and 1033 other listed entities in 2023, and 238 Group 1 listed entities, 114 Group 2 listed entities, 284 Group 3 listed entities and 238 other listed entities in 2024.⁶

As shown in Figure 1A, the first group of listed entities subject to AASB S2 and ASSA 5000, Group 1 listed entities, exhibit the highest disclosure rates, with 89.9% in 2023 and 92.0% in 2024, implying their preparation for the mandatory climate-related disclosures. Group 2 listed entities follow the Group 1 listed entities and have an increasing trend of climate-related disclosures, with the percentage of disclosers increase from 68.9% in 2023 to 70.2% in 2024. The percentage of climate-related disclosers in Group 3 listed entities also grow from 49.7% in 2023 to 65.5% in 2024. In addition, we also observe a positive trend of climate-related disclosures in Annual Reports for other listed entities that are not legislated for mandatory climate-related reporting and assurance, which increase from 33.2% in 2023 to 43.7% in 2024. This trend indicates a growing awareness and responsiveness to the mandatory climate reporting requirements.⁷

⁵ Refer ASIC Regulatory Guide 280 (ASIC 2025) for details on group thresholds for who must prepare a Sustainability Report. We obtain the financial data from SIRCA database, and NGER reporting status from NGER data and registers (https://cer.gov.au/markets/reports-and-data/nger-reporting-data-and-registers). Due to lack of employee data available for a large number of entities, we assume that the number of employees exceeded the threshold of each group. There are 70 (15) observations with other necessary financial information missing to define their groups in 2023 (2024), and we classify them into the "others" category in this report.

⁶ In our matched-entity sample of 819 entities in each of 2023 and 2024, we define the group of entities based its 2024 data and, to remove the influence from movements in group membership, each entity has the same group membership across 2023 and 2024. This sample includes 221 Group 1 listed entities, 103 Group 2 listed entities, 269 Group 3 listed entities and 226 other listed entities for both 2023 and 2024.

⁷ The increasing trends of the number of climate-related disclosers in each group of entities hold with our matchedentity sample. The percentage of climate-related disclosers in the matched-entity sample of 221 Group 1 listed entities increases from 90.5% (i.e., 200 Group 1 listed entities disclosers) in 2023 to 92.3% (i.e., 204 Group 1 listed entities disclosers) in 2024, which is followed by the percentage in 103 Group 2 listed entities of 64.1% (i.e., 66 Group 2 listed entities disclosers) in 2023 and 70.9% (i.e., 73 Group 2 listed entities disclosers) in 2024, and the percentage in 269 Group 3 listed entities of 59.9% (i.e., 161 Group 3 listed entities disclosers) in 2023 to 66.9% (i.e., 180 Group 3 listed entities disclosers) in 2024. The climate-related disclosure rate in 226 other listed entities in the matched-entity sample increase from 36.3% (i.e., 82 other listed disclosers) in 2023 to 44.7% (i.e., 101 listed other disclosers) in 2024.

89.9% 92.0% 100.0% 90.0% 80.0% 68.9% 70.2% 65.5% 70.0% 60.0% 49.7% 50.0% 43.7% 40.0% 33.2% 30.0% 20.0% 10.0% 0.0% Group 1 Group 2 Group 3 Others **■** 2023 **■** 2024

Figure 1A: Disclosure Rates by Group

Note: The percentages reported in the figures above are calculated by the number of disclosers in each group divided by sample size in each group.

2.2 Climate-Related Disclosures by Industry

Figures 1B and 1C provide a breakdown of climate-related disclosures of all listed entities across various industries, classified according to the Global Industry Classification Standard (GICS). Following the guidance of TCFD (2017) and AASB-AUASB (2019), industries are grouped based on their level of exposure to climate-related risks. Climate-Sensitive Industries include Consumer Staples, Energy, Financials, Industrials, Materials, Real Estate, and Utilities. The remaining industries, which exhibit relatively lower levels of climate-related exposure, are categorised under Other Industries and include Communication Services, Consumer Discretionary, Health Care, and Information Technology.

Climate-related disclosures increase across all industries from 2023 to 2024.⁸ In 2024, the Real Estate sector exhibits the highest disclosure rate at 93.6%, up from 58.3% in 2023. This is followed closely by Utilities at 90.0%, which has the highest disclosure rate of 81.0% in 2023. Conversely, the Financials sector⁹, despite being classified as Climate-Sensitive, has the lowest disclosure rate at 49.2% in 2024 among all sectors.

⁸ This upward trend in every industry holds with our matched-entity sample, except for Customer Staples (from 89.3% (25 disclosers out of 28 listed entities) in 2023 to 85.7% (24 disclosers out of 28 listed entities) in 2024.

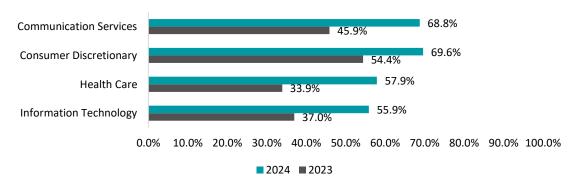
⁹ The fact that of 31.3% of listed entities in the Financials sector are Group 1 listed entities can explain the relatively low disclosure rate.

The improvements in disclosure rates from 2023 to 2024 vary across industries, ranging from 11.1% to 70.8%, reflecting different levels of awareness and engagement in climate reporting. The Utilities sector in Climate-Sensitive Industries demonstrates the smallest improvement (11.1%), understandable given that it already has the highest disclosure rate in 2023 (81.0%). In contrast, the Health Care sector, categorised under Other Industries, has the lowest disclosure rate in 2023 (33.9%) but sees the most significant improvement, with a 70.8% increase in 2024 —representing the largest growth in climate-related disclosure among all sectors. This variation in improvements highlights that certain industries have more advanced practices in climate reporting, while others are rapidly catching up.

83.3% **Consumer Staples** 88.9% Energy **Financials** 72.5% Industrials 68.3% Materials 93.6% **Real Estate** 90.0% Utilities 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 90.0% 100.0%

Figure 1B: Disclosure Rates in Climate-Sensitive Industries





Note: The percentages reported in the figures above are calculated by the number of disclosers divided by total sample size in each industry.

Overall Climate-Sensitive Industries continue to exhibit higher disclosure rates than Other Industries, while Other Industries demonstrate a stronger growth trend. Other Industries has an average 49.9% improvement in disclosure rates over two years, compared to a 33.5% improvement in Climate-Sensitive Industries, suggesting a

positive growth in climate-related disclosures across all sectors.

3. Climate-Related Disclosure in Annual Reports: Alignment with AASB S2

We examine in Section 3.1 whether climate-related disclosures are made according to the four areas of core content of AASB S2 (consistent with the previous four pillars of TCFD), namely Governance, Strategy, Risk management, and Metrics and targets. We also assess the inclusion of scenario analysis (Section 3.2) and disclosures related to Scope 1, 2, and 3 GHG emissions (Section 3.3) to indicate the extent to which listed entities are prepared for climate reporting in compliance with AASB S2.

3.1 Alignment with AASB S2

We begin with climate-related disclosers mentioning AASB S2 or related standards, such as the International Financial Reporting Standards (IFRS) S2, in their 2023 and 2024 Annual Reports, and then review whether these entities explicitly structure their climate-related disclosures in line with the four areas of core content required by AASB S2, i.e. Governance, Strategy, Risk management and Metrics and targets (IFRS 2023). As Figure 2 reports, we find an increasing percentage of listed entities suggesting their awareness of Australian Sustainability Reporting Standards or IFRS Sustainability Disclosures Standards, from 12.6% in 2023 to 18.3% in 2024, 10 suggesting a growing awareness of the mandatory climate-related reporting requirements. Furthermore, we observe an increasing trend in the proportion of listed entities reporting climate-related information in the structure required by AASB S2, which rises from 7.9% of climate-related information disclosers in 2023 to 12.7% in 2024.11

¹⁰ In our matched-entity sample, the number of entities raised their awareness of AASB S2 (and its relevant standards) stay similar, which is 17.3% (88 out of 509 disclosers) in 2023 and 18.5% (103 out of 558 disclosers) in 2024

¹¹ Our matched-entity sample suggests the consistent trends that the percentage of listed entities reported in the AASB S2-aligned structure increase from 10.0% (51 out of 509 disclosers) in 2023, to 12.9% (72 out of 558 disclosers) in 2024.

Annual Reports of Disclosers a,b 20.0% 18.3% 18.0% 16.0% 14.0% 12.6% 12.7% 12.0% 10.0% 8.0% 7.9% 6.0% 4.0% 2.0% 0.0% 2023 2024 Disclosers mentioning AASB S2 and related standards Disclosers with the AASB S2-aligned four areas of core content structure

Figure 2: Awareness and Alignment with AASB S2 In
Annual Reports of Disclosers a,b

Note: ^a We search the following keywords to identify the mention of AASB S2 and relevant standards: "IFRS S2", "ISSB S2", "ISSB", "AASB S2", "AASB Climate-related Disclosures", "Australian Sustainability Reporting Standards", and "ASRS".

^b The percentages reported in the figure above are calculated by the number of listed entities mentioning AASB S2 and related standards (with the AASB S2-aligned four areas of core content structure) divided by the number of disclosers.

3.2 Disclosures of Scenario Analysis

As AASB S2 paragraphs 22 and 25 require scenario analysis to be conducted to assess climate resilience and risk management, we examine the reporting of scenario analysis in the context of climate-related discussion.¹² As demonstrated in Figure 2A, there is an upward trend of the percentage of listed entities conducting and reporting scenario analysis in Annual Reports, increasing from 7.1% of disclosers in 2023 to 11.7% in 2024, exhibiting an improvement in alignment with the requirements set out in AASB S2.¹³

¹² We do not consider the mentions of plan for scenario analysis in future in the analysis in this section.

¹³ Our matched-entity sample consistently identifies an increasing trend of disclosure of climate-related scenario analysis; we identify 9.0% (46 out of 509 disclosers) reporting their climate-related scenario analysis in the 2023 Annual Reports and 11.6% (65 out of 558 disclosers) in the 2024 Annual Reports.

14.0%

12.0%

10.0%

7.1%

8.0%

6.0%

4.0%

2.0%

Disclosers reporting climate-related scenario analysis

Figure 2A: Overview of Climate-Related Scenario Analysis

Note: The percentages reported in the figure above are calculated by the number of listed entities reporting climate-related scenario analysis divided by the number of disclosers.

Most of those listed entities (94.1%) conduct their analysis based on the scenarios relates to global warming/temperature changes, aligning with science-based initiatives. 14 The most conventional scenarios used are 1.5 °C and 2 °C increase in the global average temperature above the pre-industrial levels in the Paris Agreement, RCP scenarios and SSPs scenarios, which also align with the requirements of scenario analysis set out in the Corporations Act (ASIC 2025). 15 There are also a few listed entities adopting other scenarios such as the success of the company's energy transition plan, extreme weather, and economic environment. By comparing the climate-related scenario analysis reported in the 2023 and 2024 Annual Reports, we identify that 28.3% (13 out of 46 listed entities) revise their climate-related scenarios or update their reporting of scenario analysis in their 2024 Annual Reports. We further examine the number of climate-related scenarios adopted by the disclosers with scenario analysis as reporting entities must use a minimum of two climate scenarios that are referable to temperature increases set out in the Climate Change Act 2022 (ASIC 2025). Figure 2B reports the distribution of the number of scenarios analysed among those with scenario analysis. We find that, in both years, entities analysing

¹⁴ Such as RCP, SSPs, the Network for Greening the Financial System (NGFS), the International Energy Agency's (IEA) Stated Policies Scenario (STEPS), IEA's Announced Pledges Scenario (APS), IEA's Net Zero Emissions (NZE) Scenario, the Paris Agreement, the Insurance Council of New Zealand (ICNZ) sector scenarios, and the Australian Energy Market Operator (AEMO) models.

¹⁵ The Corporations Act requires scenario analysis to be carried out using at least two scenarios referable to temperature increases set out in subparagraphs 3(a)(i) and 3(a)(ii) of the Climate Change Act 2022. The two mandated scenarios are currently (1) increase in global average temperature of 1.5°C above pre-industrial levels; an (2) increase in global average temperature well exceeding 2°C above pre-industrial levels (meaning an increase of 2.5°C or higher) (ASIC 2025). There are no requirements on maximum number of scenarios.

three climate-related scenarios account for the largest proportion, which increases from 38.8% in 2023 to 44.9% in 2024. This increase also suggests that listed entities are more likely to analyse three scenarios, relative to other numbers of scenarios, if they decide to report their scenario analysis.

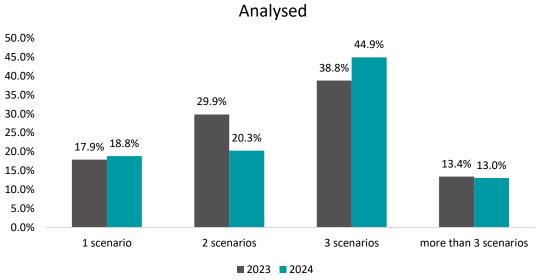


Figure 2B: Distribution of the Number of Scenarios
Analysed

Note: The percentages reported in the figure above are calculated by the number of listed entities reporting their analysis of the corresponding number of climate-related scenarios divided by the number of listed entities reporting scenario analysis in their Annual Reports.

3.3 Disclosures of Scope 1, Scope 2 and Scope 3 GHG Emissions

AASB S2 paragraph 29 requires the entities to report the GHG emissions generated during the reporting period, categorised into Scope 1, 2 and 3 GHG emissions and expressed as metric tonnes of CO2 equivalent. Figure 2C presents the trends in GHG emissions disclosures¹⁶ among entities disclosing climate-related information in their Annual Reports in 2023 and 2024. The findings indicate a notable increase in the proportion of listed entities disclosing Scope 1 and/or Scope 2 GHG emissions, rising from 18.4% in 2023 to 26.3% in 2024.¹⁷ Similarly, the percentage of entities reporting Scope 3 GHG emissions grows from 8.8% to 13.2% over the same period. The rise in

¹⁶ We notice that there are cases where the listed entities mention that they have undertaken the work to measure their GHG emissions and/or that they report their GHG emissions without specifying the absolute value in tones. We exclude these cases from our analysis in this section. We also exclude the cases where listed entities report total GHG emissions without specifying the scope levels.

¹⁷ Our matched-entity sample demonstrates a consistent upward trend; 25.5% (130 out of 509 disclosers) disclose Scope 1 and/or Scope 2 GHG emissions in 2023, which increases to 26.5% (148 out of 558 disclosers) in 2024.

Scope 3 GHG emissions disclosures is particularly significant, as it reflects an expanding recognition of value chain emissions and their role in assessing corporate climate impact. However, the percentage of entities disclosing Scope 3 GHG emissions in the Annual Reports remains about half that of those reporting Scope 1 and Scope 2 GHG emissions in both 2023 and 2024.¹⁸ Overall, the data highlights a positive shift towards greater alignment with climate reporting frameworks.

Emissions in Disclosers' Annual Reports

30.0%
25.0%
26.3%

18.4%
15.0%
10.0%
8.8%
5.0%
0.0%

2023
2024

— Disclosers reporting Scope 1 and/or Scope 2 GHG emissions
— Disclosers reporting Scope 3 GHG emissions

Figure 2C: Disclosure of Scope 1, Scope 2 and Scope 3 GHG Emissions in Disclosers' Annual Reports

Note: The percentages reported are calculated by the number of listed entities in the corresponding cell divided by the number of disclosers.

4. Climate-Related Incentives in Remuneration Reports

The integration of climate-related incentives into executive remuneration structures, along with their disclosure in the Remuneration Reports, represents a strategic shift in corporate governance, ensuring that executive compensation is directly linked to achieving climate-related objectives. AASB S2 paragraphs 6 and 29 require the entities to describe whether and how climate-related factors are incorporated into executive remuneration.

Figure 3 offers an overview of climate-related incentives disclosed in Remuneration Reports of listed entities for 2023 and 2024. The proportion of entities disclosing climate-related incentives in their Remuneration Reports rises from 9.9% in 2023 to 14.6% in 2024, reflecting an increasing focus on climate-related executive

¹⁸ Our matched-entity sample reports a consistent upward trend. 12.0% (61 out of 509 disclosers) disclose Scope 3 GHG emissions in 2023, which increases to 13.8% (77 out of 558 disclosers) in 2024.

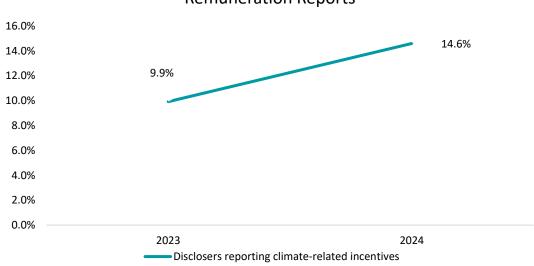


Figure 3: Overview of Climate-Related Incentives in Remuneration Reports

Note: The percentages reported in the figure above are calculated by the number of listed entities reporting climate-related incentives in their Remuneration Reports divided by the number of disclosers.

4.1 Climate-Related Incentives by Group

Figure 3A illustrates the climate-related incentives (or performance assessments) disclosed in Remuneration Reports by group for the years 2023 and 2024. Group 1 listed entities have the highest rate of reporting on their climate-related incentives in both 2023 and 2024, and this rate increases from 28.8% to 32.9%. Group 2 and Group 3 listed entities presented much lower rates of reporting climate-related incentives. The rates for Group 2 listed entities are 6.5% in 2023 and 7.5% in 2024, and that for Group 3 listed entities are 2.9% in 2023 and 2.2% in 2024. Other listed entities that are not legislated for mandatory climate-related disclosures and assurance have a similarly low rate with Group 3 listed entities, while it increases from 1.2% to 3.8%. ²⁰

¹⁹ Our matched-entity sample exhibits a similar upward trend of disclosing climate-related incentives in their Remuneration Reports, with 12.4% (63 out of 509) disclosers in in 2023 and 14.5% (81 out of 558) disclosers matched-entity sample in 2024.

²⁰ Our matched-entity sample displays a similar upward trend of reporting climate-related incentives in Remuneration Reports in each group. Most climate-related incentives are reported by Group 1 listed entities. 33.3% (68 out of 204) Group 1 listed entities in 2024 report climate-related incentives in their Remuneration Reports, which increases from 26.5% (53 out of 200) Group 1 listed entities disclosers in 2023. 7.6% (5 out of 66) Group 2 listed entities disclosers in the matched-entity sample report climate-related incentives in 2023, and 8.2% (6 out of 73) Group 2 listed entities disclosers in the matched-entity sample in 2024. 1.9% (3 out of 161) Group 3 listed entities disclosers in the matched-entity sample report climate-related incentives in 2023, and 2.2% (4 out of 18) Group 3 listed entities disclosers in 2024. Only 2.4% (2 out of 82) other listed disclosers report climate-related incentives in 2023 and 3.0% (3 out of 101) other listed disclosers do so in 2024.

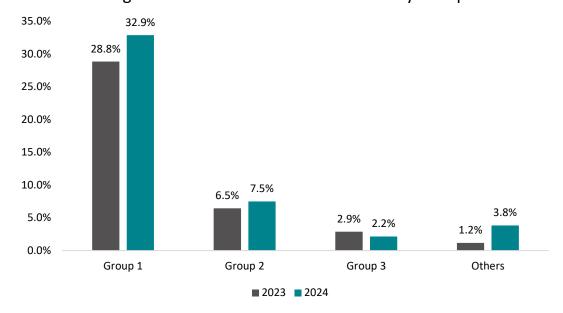


Figure 3A: Climate-Related Incentives by Group

Note: The percentages reported in the figure above are calculated by the number of listed entities reporting climate-related incentives in their Remuneration Reports in each group divided by the number of disclosers.

4.2 Climate-Related Incentive Items

We further categorise climate-related incentives reported in 2023 and 2024 Remuneration Reports. As Figure 3B demonstrates, in both years, the highest climaterelated incentives are associated with Emissions in general factors, where the listed entities do not describe the incentives in a more generic way, such as overall emissions intensity reduction, decarbonisation progress, and low-emissions supply chains, rather than with reference to any of Scope 1, Scope 2 or Scope 3 GHG emissions. However, we see a decrease in Emissions in general, from 47.9% in 2023 to 30.2% in 2024. In 2024, the second-highest climate-related incentive is related to Scope 1 and Scope 2 GHG emissions, increasing from 18.1% in 2023 to 27.9% in 2024 of those with climaterelated incentives. Notably, incentives related to Scope 3 GHG emissions increase from 4.3% in 2023 to 11.6% in 2024. These observations collectively suggest that listed entities pay growing attention to emissions reductions, alongside other climaterelated performance including climate projects delivery, climate reporting, and climate risk management, by incorporating them into their executive remuneration structure. It also indicates a tendency of adopting more specific emission-related incentives with reference to Scope 1, Scope 2 and/or Scope 3 GHG emissions, relative to a generic description.

60.0% 47.9% 50.0% 34.0% 40.0% 30.2% 27.9% 30.0% 23.3% 22.1% 18.1% 16.0% 14.9% 20.0% 11.6% 5.8% 10.0% 4.3% 2.3% 1.1% 1.1% 0.0% 2023 2024 ■ Scope 1 and 2 GHG emissions Scope 3 GHG emissions ■ Emissions in general ■ Other climate-related performance ■ Climate-related reporting ■ Climate-related risk management

Figure 3B: Climate-Related Incentives in Remuneration Reports

Note: The percentages reported in the figure above are calculated by the number of listed entities reporting climate-related incentives in Remuneration Reports in each topic divided by the number of listed entities reporting climate-related incentives in the Remuneration Reports. List entities may report climate-related incentives in multiple categories in their Remuneration Reports.

■ Energy transition

■ Climate-related strategy

■ Other

5. Climate-Related Disclosures in the Notes to the Financial Statements

To reflect on the financial implications of climate-related information, we investigate the nature and extent of climate-related disclosures in Financial Reports, which are contained in the Notes to the Financial Statements section. As illustrated in Figure 4, the proportion of climate-related disclosures included in their Notes to the Financial Statements section increases from 17.5% in 2023 to 23.3%.²¹ The increasing climate-related disclosures in Financial Reports indicates the growing recognition of the financial impacts, and the potential connectivity of climate-related disclosures and Financial Reports.

²¹ In our matched-entity sample, the percentage of entities that reported climate-related information in their Notes to the Financial Statements also increases, which is from 21.4 % (109 out of 509 disclosers) in 2023 to 23.1% (129 out of 558 disclosers) in 2024.

Notes to the Financial Statements

25.0%

20.0%

17.5%

15.0%

5.0%

Precentage of disclosers with climate-related disclosures in the Notes to Financial Statements

Figure 4: Overview of Climate-Related Disclosures in the Notes to the Financial Statements

Note: The percentages reported in the figures above are calculated by the number of listed entities disclosing climate-related keywords in the Notes to the Financial Statements divided by the number of disclosers.

5.1 Disclosures in the Notes to the Financial Statements by Group

Figure 4A presents that Group 1 listed entities exhibit the highest rate of climate-related disclosures in the Notes to the Financial Statements, which is 43.7% in 2023 and 42.0% in 2024. The rate of climate-related disclosures in the Notes to the Financial Statements are sticky for Group 1 listed entities across 2023 to 2024. The rate of climate-related disclosures in the Notes to the Financial Statements in Group 2 listed entities experiences a more noticeable increase from 14.0% in 2023 to 21.3% in 2024. There is a lower rate of climate related disclosures in the Notes to the Financial Statements for Group 3 listed entities, which stays at 9.1% in both 2023 and 2024. Other listed entities, that are not legislated for mandatory climate-related disclosures have the highest rates of increase, up from 4.1% in 2023 to 10.6% in 2024. The mandatory climate-related disclosures require the entities to report the financial implications of climate-related risks and opportunities, while a large proportion of disclosures remain outside the Financial Reports, even for Group 1 listed entities. This issue of connectivity between sustainability disclosures inside Financial Reports and

²² In our matched-entity sample, however, there is a growing rate of Group 1 listed entities disclosing climate-related information in their Notes to the Financial Statements, increasing from 40.0% (80 out of 200) in 2023 to 43.6 % (89 out of 204) in 2024. Similarly, the rate of Group 2 listed entities disclosers reporting climate-related information in the Notes to the Financial Statements similarly increases from 13.6% (9 out of 66) to 19.2% (14 out of 73), and the rate of Group 3 listed entities disclosers reporting such information increases from 8.7% (14 out of 161) to 9.4% (17 out of 180). While limited cases are identified, the number (rate) of other climate-related disclosers in the matched-entity sample also rises from 7.3% (6 out of 82) in 2023 to 8.9% (9 out of 101) in 2024.

those within the Annual Report requires further research to identify whether financial impacts of climate-related information should be identified more often in Financial Reports, with this issue being identified as one requiring more guidance from the regulators and standard setters.

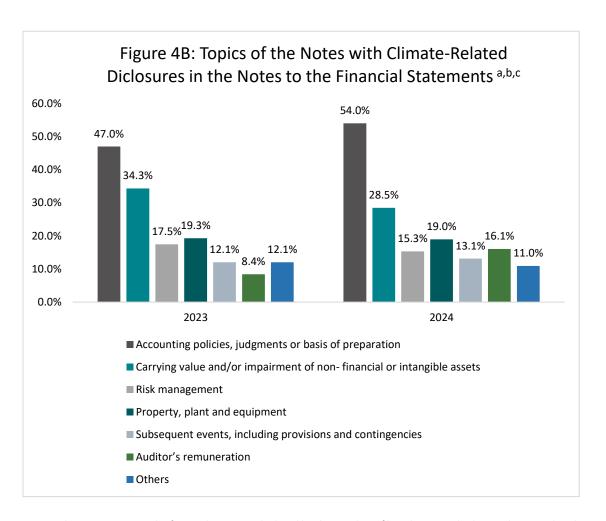
Statements by Group 50.0% 43.7% 42.0% 40.0% 30.0% 21.3% 20.0% 14.0% 10.6% 9.1% 9.1% 10.0% 4.1% 0.0% Group 1 Group 2 Group 3 Others **■** 2023 **■** 2024

Figure 4A: Disclosure Rates in the Notes to the Financial

Note: The percentages reported in the figure above are calculated by the number of listed entities disclosing climate-related keywords in the Notes to the Financial Statements divided by the number of disclosers.

5.2 Topics of Climate-Related Notes to the Financial Statements

Figure 4B provides a summary of the specific Notes to the Financial Statements containing climate-related disclosures among listed entities disclosing climate-related keywords in their Notes to the Financial Statements. The most frequently observed topic in these notes for both years is Accounting policies, judgments or basis of preparation, reported by 47.0% of listed entities with climate-related disclosures in their Notes to the Financial Statements in 2023 and increasing to 54.0% in 2024, suggesting that listed entities are placing greater emphasis on climate-related factors when preparing their Financial Reports. The next significant increase in the climaterelated disclosure topics in the Notes to the Financial Statements between 2023 and 2024 is in Auditor's remuneration. This topic has almost doubled, increasing from 8.4% to 16.1%, indicating that a growing percentage of listed entities are engaging Financial Report auditors in climate-related assurance and are highlighting this as a separate component of fees paid in this note.



Note: ^a The percentages in the figure above are calculated by the number of listed entities disclosing climate-related keywords under each topic in the Notes to the Financial Statements divided by the number of listed entities with climate-related disclosures in the Notes to the Financial Statements.

^c Others can include notes relating to share-based payments, revenue and expenses, business combinations, income tax, net debt, investment in joint venture, investment property,

6. Climate-Related Disclosures in Auditor's Reports on the Financial Statements

To examine auditors' consideration of climate-related disclosures, we search the KAMs section and other sections of Auditor's Reports on the Financial Statements for those containing one of the climate-related keywords.

As shown in Figure 5, the percentage of Auditor's Reports discussing climate-related content in KAMs has remained reasonably consistent slightly increasing from 2.5% of disclosers in 2023 to 2.9% in 2024.²³ Most of these Auditor's Reports with climate-

^b Listed entities can report climate-related information on multiple topics in the Notes to the Financial Statements.

²³ In our matched-entity sample, we find that 3.5% of disclosers (18 Auditor's Reports out of 509 disclosers) have KAMs with climate-related information, also remains consistent but slightly decreases to 2.9% (16 Auditors' Reports out of 558 disclosers) in 2024.

related information are issued to Group 1 listed entities, with 100% in 2023 and 82.4% in 2024. In both years, 53.7% of these Auditor's Reports with climate-related disclosures in KAMs are issued by EY, and the rest of them are issued by one of the following auditor firms: Deloitte (31.7%), PwC (7.3%), KPMG (4.9%) and BDO (2.4%) The percentage of Auditor's Reports discussing climate-related content in other sections also see an increase from 0.7% in 2023 to 2.2% in 2024.

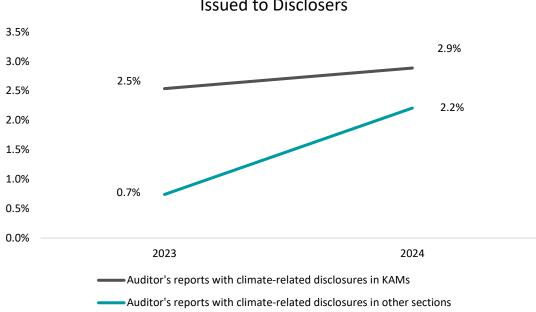


Figure 5: Climate-Related Disclosure in Auditor's Reports
Issued to Disclosers

Note: The percentages reported are calculated by the number of listed entities in the corresponding cell divided by the number of disclosers.

6.1 Topics of Climate-Related Disclosures in KAMs

The topics of KAMs with climate-related disclosures are reported in Figure 5A. Most of the KAMs, where auditors mention climate-related consideration, are related to *Asset valuation* (73.3% in 2023 and 81.8% in 2024). Some of these KAMs are related to *Provisions and other obligations* (20.0% in 2023 and 13.6% in 2024), and a minority of KAMs are related to other topics (6.7% in 2023 and 4.6% in 2024). Auditors are more likely to mention climate-related information when they discuss their audit procedures to address the KAMs, while some of them mention such information when they discuss the audit risk related to the KAMs as well. We compare the topics of KAM with climate-related disclosures year by year and find 83.3% of the listed entities receiving KAMs with climate-related disclosures in 2023 have repeated KAMs with climate-related

²⁴ The auditor of AGL Energy Ltd, Deloitte, is the only one that reports a KAMs on *Potential financial reporting impacts of climate change related risk*, which it reported in both 2023 and 2024.



Figure 5A: Topics of KAMs with Climate-Related Disclosures a,b,c

Notes: ^a The percentages reported are calculated by the number of KAMs in the corresponding climate-related disclosure topic divided by the total number of KAMs with climate-related disclosure (i.e. 30 KAMs with climate-related disclosures from 24 Auditor's Reports in 2023, and 22 KAMs with climate-related disclosures from 17 Auditor's Reports in 2024).

6.2 Climate-Related Disclosures in Other Sections of Auditor's Reports

In addition to KAMs, we also notice some cases where auditors mention the clients' reporting of climate-related information or their assurance engagements on climate-related information in other sections of their Auditor's Reports on the Financial Report. For example, in the Auditor's Report on the Financial Report issued to the members of Monadelphous Group Ltd (ASX: MND) in 2024, EY specifies in the Other information section of their reports that they have obtained the climate-related financial disclosures and considered whether these disclosures are materially inconsistent with the Financial Reports and their knowledge (MND 2024). We also observe some auditors report their conduct of climate-related assurance and reporting services in the Basis of Opinion section in their Auditor's Reports²⁵, and claim that these non-audit services provided for the client have not impaired their independence as auditors.

^b Others include Business combination and Potential financial reporting impacts of climate change related risk.

^c Auditors can report KAMs with climate-related disclosures on multiple topics in Auditor's Reports.

²⁵ The voluntary assurance engagements or climate-related reporting service provided for the client include a GHG emissions preconditions assessment in relation to climate reporting and pre-assurance climate-related reporting.

All these ASX-listed entities client and auditors are domiciled in New Zealand. ^{26,27}

In addition, we find an instance where the auditor suggests that they have considered the potential impact of climate-related risk on their risk assessment in Audit Scope outlined in Audit Approach.²⁸ We also observe three instances where the Auditor's Report contains a separate section *Climate change/ Our consideration of climate change* addressing their consideration of climate change in their Auditor's Reports.²⁹

7. Assurance Engagements on Climate-Related Information Referenced in Annual Reports

We also identify references in Annual Reports to the provision of assurance services on climate-related information. Specifically, we review each Annual Report with climate-related disclosures and identify the disclosures of third-party assurance services on climate-related information and the inclusion of climate-related Assurance Reports in Annual Reports.

Figure 6 reports an upward trend in the provision of voluntary assurance engagements as revealed in Annual Reports. It highlights a notable increase in listed entities that mention their purchase of third-party assurance engagements on climate-related information, rising from 7.6 % in 2023 to 13.2% in 2024. Similarly, the percentage of disclosers incorporating an Assurance Report in their Annual Reports grows from 2.4% to 4.2% over these two years.³⁰

²⁶ This observation can partially be attributable to the fact that mandatory climate related disclosures in New Zealand came into effect on 1 January 2023 and that (Ministry for the Environment 2023) and that climate reporting entities must obtain independent assurance over greenhouse gas emissions for the financial years ending on or after 27 October 2024 (Ministry of Business, Innovation & Employment 2024).

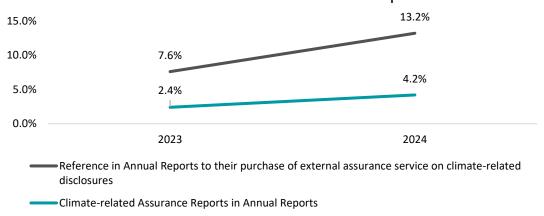
²⁷ These client entities are Auckland International Airport Ltd (2023 and 2024, auditor: Deloitte), Infratil Ltd (2024, auditor: KPMG), Meridian Energy Ltd (2024, auditor: Deloitte), Spark New Zealand Ltd (2024, auditor: Deloitte), Xero Ltd (2024, auditor: EY). They are audited in accordance with ISA (NZ).

²⁸ The entity is Charter Hall Group (2023, auditor: PwC). However, the same auditor for the entity does not disclose such consideration in 2024 Auditor's Report.

²⁹ The entities are Adriatic Metals plc (2023, auditor: BDO) and BHP Group Ltd (2023 and 2024, auditors: EY)

³⁰ There is a consistent and growing trend related to assurance on climate-related information in our matchedentity sample. 55 listed entities (10.8% of climate-related disclosers) mention the undertaking of assurance services on climate-related information in 2023, and 76 (13.6%) in 2024. We also identify 20 instances of inclusion of Assurance Reports (3.9% of climate-related disclosers in the matched-entity sample) in Annual Reports in 2023, and 25 (4.5%) in 2024.

Figure 6: Overview of Assurance on Climate-Related Information Referenced in Annual Reports ^a



Note: ^a The percentages reported are calculated by the number of entities in the corresponding cell divided by the number of entities with climate-related disclosures in their Annual Reports.

Figure 6A reports the percentage of disclosers in each group mentioning their obtaining of external assurance over climate-related information and the percentage of disclosers incorporating an Assurance Report in Annual Reports in each group. With mandatory assurance requirements, Group 1 listed entities are the first group obtaining assurance and present Assurance Reports in Annual Reports. 24.6% (30.6%) Group 1 listed entities disclosers mention their purchase of external assurance service on climate-related disclosures in 2023 (2024). 8.2% (10.5%) of Group 1 listed entities disclosers enclose the Assurance Report in their 2023 (2024) Annual Reports, there are for.³¹

³¹ In our matched-entity sample, 25.5% (51 out of 200) of Group 1 listed entities disclosers mention their purchase of external assurance on climate-related disclosures in 2023, increasing to 31.9% (65 out of 204) in 2024. 9.0% (18 out of 200) Group 1 listed entities disclosers enclose their Assurance Report in their Annual Reports in 2023, while 11.3% (23 out of 204) do so in 2024.

35.0% 30.6% 30.0% 24.6% 25.0% 20.0% 10.5% 8.2% 15.0% 10.0% 6.3% 5.0% 0.0%0.0% 0.0% Group 1 Group 2 Group 3 Others ■ Reference to assurance provision in 2023 ■ Reference to assurance provision in 2024 ■ Assurance Reports in Annual Reports in 2023 ■ Assurance Reports in Annual Reports in 2024

Figure 6A: Assurance on Climate-Related Information Referenced in Annual Reports by Group

Note: ^a The percentages reported are calculated by the number of entities in the corresponding cell divided by the number of entities with climate-related disclosures in their Annual Reports in each group.

The following summarises our analysis on the details collected from Assurance Reports (enclosed in Annual Reports) in regard to assurance providers, climate-related assurance subject matters, assurance levels, assurance opinions, assurance standards, and reporting criteria (with climate-related assurance subject matters, assurance levels and assurance opinions summarised in Table 1):

- Assurance Providers: Across two years of 2023 and 2024, the majority of Assurance Reports are provided by Big 4 auditors, with the one exception being where the Assurance Report is issued by Bureau Veritas. 83.3% (40 out of 48 Assurance Reports across two years are provided by the listed entities' incumbent Financial Report auditors.
- **Subject Matters:** Table 1 shows an increasing percentage of Assurance Reports specify that their subject matter includes Scope 1, Scope 2, and/or Scope 3 GHG emissions, from 69.6% (16 out of 23) Assurance Reports in 2023 to 80.0% (20 out of 25) in 2024.³² There is a minor reduction in the percentage of Assurance Reports listing a suite of reports, such as Sustainability Reports, as their subject matter, from 30.4% (7 out of 23) in 2023 to 20.0% (5 out of 25) in 2024.
- Assurance level: As shown in Table 1, based on Assurance Reports we identify that

³² Our matched-entity sample exhibits a consistent increasing trend; 72.2% (13 out of 18) Assurance Reports specify the subject matters as Scope 1, Scope 2 and/or Scope 3 in 2023, and 87.0% (20 out of 23) in 2024.

are contained in Annual Reports, most engagements are limited assurance engagements with 87.0% (20 out of 23) in 2023 and 76.0% (19 out of 25) in 2024. However, we note a positive increase in the percentage of entities obtaining a combined level of assurance, with both limited and reasonable assurance being provided depending on subject matters, from 13.0% (3 out of 23) in 2023 to 24.0% (6 out of 25) in 2024. This suggests that listed entities and audit firms are working towards a transition from limited assurance to reasonable assurance, as outlined in ASSA 5010 (AUASB 2025a).

- Assurance Opinions: All Assurance Reports in both years express unqualified opinions, although a number of them include either *Emphasis of Matter* or *Other Matters* paragraphs. According to Table 1, in 2024, the presence of Assurance Reports with *Emphasis of Matter* or *Other Matters* paragraphs among all the incorporated climate-related Assurance Reports decline to 24.0% in 2024 from 34.8% in 2023. The majority of *Other Matters* intend to clarify the assurance scope that information relating to prior reporting periods or forward-looking information are not subject to assurance procedures. Additionally, PwC raise a recurring *Emphasis of Matter* to Commonwealth Bank of Australia (ASX: CBA) in both 2023 and 2024 concerning the *Estimation of Selected Scope 3 Emissions* (CBA 2023, 2024).
- **Assurance Standards:** Prior to the issuance of ASSA 5000, all assurance engagements on climate-related information in both years are undertaken in accordance with ISAE/ASAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information and/or ISAE/ASAE 3410 Assurance Engagements on Greenhouse Gas Statements.
- Reporting Criteria: Across both years, self-developed methodologies—either
 independently or in combination with other frameworks—are the most commonly
 used climate-related reporting criteria in the assurance engagements. The most
 frequently applied public reporting frameworks are the GHG Protocol, GRI, and
 NGER scheme.

Table 1: Details of Assurance on Climate-Related Information Disclosed in Assurance Reports (Enclosed in Annual Reports)

	2023 (n=23)		2024 (n=25)		
	No.	% ^a	No.	% a	
Panel A: Climate-related subject matters					
Scope 1 and Scope 2 only	8	34.8%	12	48.0%	
Scope 1, Scope 2 and Scope 3	8	34.8%	8	32.0%	
Broad subject matter (e.g. Sustainability Reports)	7	30.4%	5	20.0%	
Panel B: Assurance levels					
Limited assurance	20	87.0%	19	76.0%	
Limited and reasonable assurance	3 ³³	13.0%	6 ³⁴	24.0%	
Panel C: Assurance opinion					
Unqualified opinion	15	65.2%	19	76.0%	
Unqualified with Emphasis of Matter and/or Other Matters	8 ³⁵	34.8%	6 ³⁶	24.0%	

Note: ^a The percentages reported are calculated by the number of listed entities in the corresponding cell divided by the number of listed entities enclosing Assurance Reports in their Annual Reports.

³³ Among these, one entity with both limited and reasonable assurance levels has received an unqualified opinion with an *Other Matters* paragraph.

³⁴ Among these, three entities with both limited and reasonable assurance levels have received unqualified opinions that include an *Emphasis of Matter* and/or *Other Matters* paragraph.

³⁵ Among these, 7 are assured with limited assurance level and 1 with limited and reasonable assurance level.

³⁶ Among these, 3 are assured with limited assurance level and 3 with limited and reasonable assurance level.

References

- Australian Accounting Standards Board [AASB]. 2024. AASB S2 Climate-Related Disclosures. Available from https://standards.aasb.gov.au/sites/default/files/2024-10/AASBS2_09-24.pdf.
- Australian Accounting Standards Board [AASB], and Auditing and Assurance
 Standards Board [AUASB]. 2019. Climate-related and Other Emerging Risks
 Disclosures: Assessing Financial Statement Materiality Using AASB/IASB Practice
 Statement 2. Available from
 https://www.auasb.gov.au/admin/file/content102/c3/AASB_AUASB_Joint_Bulletin_May2019.pdf.
- Australian Securities and Investments Commission [ASIC]. 2018. *REP 593 Climate Risk Disclosure by Australia's Listed Companies*. Available from https://download.asic.gov.au/media/4871341/rep593-published-20-september-2018.pdf.
- Australian Securities and Investments Commission [ASIC]. 2025. Regulatory Guide 280 Sustainability reporting Available from https://download.asic.gov.au/media/j4rhwyiz/rg280-published-31-march-2025.pdf.
- Auditing and Assurance Standards Board [AUASB]. 2025a. *Australian Standard on Sustainability Assurance ASSA 5010 Timeline for Audits and Reviews of Information in Sustainability Reports under the Corporations Act 2001*. Available from https://auasb.gov.au/media/wf5frdj0/assa5010.pdf.
- Auditing and Assurance Standards Board [AUASB]. 2025b. Standard on Sustainability Assurance ASSA 5000 General Requirements for Sustainability Assurance Engagements. Available from https://auasb.gov.au/media/zjwnghou/assa5000.pdf.
- Commonwealth Bank of Australia [CBA]. 2023. Commonwealth Bank of Australia 2023 Annual Report. Available from https://www.commbank.com.au/content/dam/commbank-assets/investors/docs/results/fy23/2023-Annual-Report-Spreads.pdf.
- Commonwealth Bank of Australia [CBA]. 2024. *Commonwealth Bank of Australia 2024 Annual Report*. Available from https://www.commbank.com.au/content/dam/commbank-assets/investors/docs/results/fy24/2024-Annual-Report spreads.pdf.
- International Financial Reporting Standards [IFRS]. 2023. IFRS S2 Climate-related Disclosures. Available from https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s2-climate-related-disclosures/.

- Monadelphous Group Ltd [MND]. 2024. *Monadelphous Group Ltd 2024 Annual Report*. Available from https://www.monadelphous.com.au/media/5867338/241014-2024-annual-report.pdf.
- Ministry for the Environment. 2023. *Mandatory Climate-related Disclosures*. Available from https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/mandatory-climate-related-financial-disclosures/.
- Ministry of Business, Innovation & Employment. 2024. *Mandatory Climate-related Disclosures*. Available from https://www.mbie.govt.nz/business-and-employment/business/regulating-entities/mandatory-climate-related-disclosures.
- Task Force on Climate-related Financial Disclosures [TCFD]. 2017. Final Report:

 Recommendations of the Task Force on Climate-related Financial Disclosures

 (June 2017). Available from https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf.
- You J. and R. Simnett. 2022. Climate-Related Disclosures and Assurance in the Annual Reports of ASX-listed Companies. AASB-AUASB Research Report (December). Available from https://www.auasb.gov.au/media/3tsbowik/aasb-auasb rr climaterelateddisclosures 12-22.pdf.
- You J. and R. Simnett. 2023. Trends in Climate-Related Disclosures and Assurance in the Annual Reports of ASX-listed Companies. AASB-AUASB Research Report (November). Available from https://aasb.gov.au/media/jlilc0cq/aasb-auasb-rr-trendsinclimaterelateddisclosures-11-23.pdf.