Consolidated Emissions Reporting Guideline: For Contractors

A Pathway for the Australian Construction Industrys' Emissions Management

SEPTEMBER 2025

AUSTRALIAN CONSTRUCTORS ASSOCIATION

Foreword

The Australian Constructors Association recognises the urgent need to address climate change and the role our industry must play in creating positive change and addressing our emissions. The ACA tasked the Environment and Sustainability Committee with tackling what we view as some the key challenges around our impacts on the climate. In this guideline, we look at how we as constructors can report our emissions more consistently across the industry.

This Consolidated Emissions Reporting Guideline is supported by our Construction Emissions Guideline and the Subcontractors and Suppliers Emissions Reporting Guide. Each of the three targets a different audience across the construction lifecycle that all have an important role to play in aligning our indsutry and improving overall productivity by streamlining our approaches to emissions reporting and management.

Please join us in navigating this critical challenge to align our collective management of emissions and help us all on the road to decarbonisation.

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AUSTRALIAN CONSTRUCTORS ASSOCIATION

Executive Summary

In the face of a changing climate, the Australian Constructors Association (ACA) recognises the urgent need for the construction industry and its value chain to decarbonise and align with Australia's emission reduction targets for 2030 and 2050. This document serves as a guidance framework for Australian construction and infrastructure contracting companies, focusing on standardised emissions reporting to enhance efficiency, transparency, and accountability.

Key Objectives:

1. **Framework Alignment:** The ACA aims to bridge gaps in emissions reporting consistency and address shortcomings in sustainability practices within the construction industry. This guidance complements existing frameworks like the Australian Sustainability Reporting Standards and the National Greenhouse and Energy Reporting Scheme.

2. **Construction-Specific Guidance:** The document clarifies common misconceptions in emissions reporting specific to construction, encouraging effective and consistent reporting practices. This is essential for fostering collaboration and driving action to reduce emissions.

3. **Intended Users and Measurement Methods:** The guidance outlines variations in disclosure requirements across jurisdictions and emphasises the importance of project-level reporting for subcontractors and suppliers.

4. **Continuous Improvement:** The ACA commits to periodically updating the guidelines to reflect new standards and methodologies, ensuring that contractors align with evolving regulations.

Importance of Emissions Reporting

Accurate emissions reporting is crucial for measuring progress, ensuring compliance, and promoting a culture of environmental stewardship. The ACA advocates for a common language in emissions reporting to facilitate benchmarking and collective action across the industry.

Collaboration and Future Directions

The ACA underscores the importance of collaboration among constructors, subcontractors, and suppliers to build a sustainable future. By adopting standardised emissions reporting practices, the construction industry can lead by example, driving significant positive change and ensuring a sustainable legacy for future generations.

ACA's guidance documents are a vital step towards achieving a resilient, low-carbon construction industry, aligning industry practices with national climate goals, and fostering a culture of accountability and transparency in emissions reporting.

This document will be periodically updated to incorporate new standards and reflect changes in methodologies and guidance. Visit the Australian Constructors Association website for the most up-to-date version available.

The advice within our guidelines is general in nature and should be utilised in conjunction with reference to Australian emissions reporting legislation. Companies are advised that they should seek appropriate internal or external advice on the suitability of emissions reporting frameworks prior to committing to any disclosures or reporting frameworks, and not to base their decisions solely on the advice contained within this guideline. Feedback when applying the guidance is welcomed to increase reporting accuracy and robustness.

1 Introduction

This Consolidated Emissions Reporting Guideline was developed by the Australian Constructors Association (ACA) with the purpose of driving climate action and helping the Australian construction industry lower emissions more efficiently. ACA members agree that the industry needs to step-up and do our part in the challenge to meet Australia's climate goals. The construction industry plays a pivotal role in enabling many other industries' journeys toward a low-carbon future; therefore, it is a critical time for our industry to make serious inroads into emissions reporting consistency.

The purpose of this document is to guide Australian construction and infrastructure contracting companies (contractors) in reporting emissions in accordance with the latest developments in the Australian Sustainability Reporting Standards (ASRS)[1], in addition to existing frameworks like the National Greenhouse and Energy Reporting Scheme (NGERS).

1.1 Guideline Aims

Efficient emissions management and carbon reduction innovations are increasingly recognised as a strategic leadership advantage for Australian companies. Taking a forward-looking approach to emissions is quickly being seen as demonstrating resilience, improving operational efficiency, and creating value for clients. The below addresses the expected changes for emissions reporting in Australia:

- **Government Policies and Industry Drivers:**
  The Treasury Laws Amendment (Financial Market Infrastructure and Other Measures) Bill 2024[2], has introduced a requirement for a 'sustainability report' in annual financial reports (Chapter 2M, Corporations Act, 2001[3]). The new disclosure obligations are planned to be phased in over four years, starting with larger entities. These new disclosure obligations present an ideal opportunity for the construction industry to refresh its collective emissions reporting practices and establish a clearer, more consistent approach.

- **Australian Sustainability Reporting:**
  The contents of the required sustainability report will be determined by the accounting standards set by the Australian Accounting Standards Board (AASB), based on the Australian Sustainability Reporting Standards (ASRS)[1]. As a result of this legislation, many Australian contractors will be required to calculate and report on their Scope 1, 2 and 3 emissions, as well as climate scenarios and risks, for the first time.

- **NGERs and ASRS:**
  In addition to existing NGER Act[4] reporting of emissions (primarily Scope 1 and 2), the introduction of the ASRS expands the calculation and reporting requirements to include Scope 3 Greenhouse Gas (GHG) emissions from the broader value chain. It also introduces opportunities to apply the GHG Protocol Corporate Accounting and Reporting Standard (2003)[5].

- **Client Demands and Sustainability Standards:**
  Infrastructure proponents are prioritising sustainability when selecting delivery partners. The New South Wales (NSW) Decarbonising Infrastructure Delivery Policy and Guideline (2024)[6] is a prime example of the way the industry is moving towards holistic emissions management. This shift is complemented by voluntary standards like the Global Reporting Initiative (GRI)[7] these guidelines can help in reporting broader sustainability impacts.

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[1] *Australian Accounting Standards Board, Australian Sustainability Reporting Standards – Disclosure of Climate-related Financial Information, (October 2023).*
[2] *The Parliament of the Commonwealth of Australia, Treasury Laws Amendment (Financial Market Infrastructure and Other Measures) Bill 2024, (2024)*
[3] *Attorney-General's Department of the Treasury, Corporations Act 2001, (July 2024)*
[4] *Department of Climate Change, Energy, the Environment and Water, National Greenhouse and Energy Reporting Act 2007, (March 2024)*
[5] *World Resources Institute, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, World Business Council for Sustainable Development, (2004)*
[6] *NSW Government, Decarbonising Infrastructure Delivery Policy: Reducing Upfront Carbon in Infrastructure, (April 2024).*
[7] *Global Reporting Initiative, GRI Sustainability Reporting Standards (GRI Standards), (February 2024).*

1.2 Key Areas of Focus

The ACA champions a sustainable construction industry. We advocate for equitable commercial frameworks, foster positive industry culture, and promote the necessary capabilities to execute projects. Together, we can build a resilient, low-carbon future for all Australians. The table below addresses the sectorial complexities the ACA is tackling in the preparation of this guideline, with reference to them interwoven throughout.

Table 1 - Sectorial Complexities and Challenge Areas

Challenge Areas	Complexity
Reporting Legislation	Responding to new legislation and expectations of Climate-related Disclosures requirements combined with navigating existing NGERs reporting expectations.
Consolidation & Boundary Setting	Consolidation of emissions and applying operational control or financial control approaches for complex organisations, as well as highlighting the boundary between principal and subcontracted works emissions responsibilities. Existing reporting frameworks are instilling a culture of avoiding responsibility for emissions by evading operational control. This guideline aims to establish best practices to address this issue. The ACA supports enabling contractors in the Australian market to better navigate emissions legislation. The ACA aims to address disparities in emissions accounting across borders, particularly for Scope 1 and 2 disclosures.
Scope 3 & Supply Chain	Indirect emissions are hard to track and require third-party data and collaboration across the value chain. Providing clarity to constructors on the best approach to compiling their Scope 3 categories and identifying inventory within them is an important first step. Additionally, there is a limited amount of subcontractor and supplier knowledge regarding requests for emissions data.

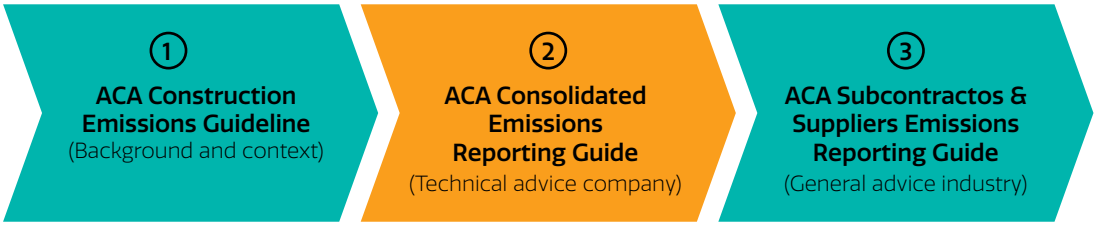
Note: The three challenge areas are tagged throughout this document and the other ACA emissions consistency publications.

2 Using the Guideline

The ACA has prepared three emissions guidelines, as summarised in Figure 1. This guideline (Guideline 2) is designed to assist contractors in the Australian building and infrastructure industry in aligning their methodologies for emissions reporting. The intent is to enhance the common understanding of emissions reporting, enabling the construction industry to identify more opportunities to reduce emissions. Improved measurement will increase organisational efficiency and reduce overhead costs when compiling emission reports. This guideline identifies the in-depth sustainability reporting and legislative nuances that mainstream emissions reporting typically requires in the Australian landscape.

The other guidelines, Guidelines (1) and Guideline (3) provide recommendations on how contractors can respectively: holistically improve emissions reporting consistency and foster a culture of accurate measurement, monitoring and reporting among subcontractors and suppliers.

Figure 1 - ACA Emissions Guides



This Consolidated Emissions Reporting Guide tackles the fundamentals of organisational emissions consolidation, boundary setting and reporting through a construction contracting lens, with sustainability practitioners as the primary audience.

This guideline can be utilised as follows:

Section 3 – Sustainability reporting preparation
Section 4 – Principles for measuring and reporting greenhouse gas emissions
Section 5 – Consolidation and boundary setting for organisations
Section 6 – Setting operational boundaries for all scopes of emissions and navigating scope 3 complexities
Section 7 – Construction sector challenges and best practice approaches to reporting including KPIs
Section 8 – Recommended sector-wide approach
Section 9 – Key takeaways
Appendix A – ACA guidance on emissions measurement hierarchy
Appendix B – Operational Control Scorecard
Appendix C – Scope 3 Screening Example
Appendix D – Emission Guideline Review

3 Sustainability Reporting

Reporting Legislation

3.1 ASRS Company Reporting

AASB S1 and AASB S2 are the new accounting standards related to sustainability and climate reporting set by the AASB. **The ACA recommends organisations prepare for AASB S2 reporting by**:

- **Evaluating existing systems and governance structures**, including business transformation within the sustainability, legal and finance departments to focus on mandatory climate reports
- **Reviewing accountability** systems to maintain compliance with mandatory climate reports and the authenticity of declarations (not just in annual or sustainability reports, but also in other promotional, website and similar materials, considering regulatory attention on greenwashing)
- **Implementing processes** for due diligence and verification in relation to climate reporting

Furthermore, while the federal government has mandated climate and emissions disclosures as mandatory for Groups 1-3, it has also introduced voluntary broader-scope sustainability reporting under AASB S1. **The ACA recommends that organisations prepare similar due diligence and review internal reporting processes for the AASB S1 social and environmental reporting** to ensure overarching sustainability approaches are aligned across the business, even if mandatory reporting is not yet in place.

3.1.1 Report Considerations

The AASB S1 and S2 annual sustainability reports are akin to financial statements and will need to be audited for accuracy and signed off by company directors. These reports will detail a company's emissions as well as climate risks and opportunities modelled against appropriate climate scenarios. Key points to consider for this reporting includes:

- **Annual Reports:** Mandatory yearly sustainability reports
- **Environmental Impact:** Focus on a company's environmental footprint
- **Standardised Guidelines:** Reporting follows ASRS
- **Director Liabilities:** Directors liable for declarations made by the organisation per lphase in of legislation
- **Mandatory Audits:** Per ASSA5010[8], full audits are required as early as 2028 for Group 1 entities, with Group 3 entities typically subject to audit by 2030
- **Existing Reports:** ACA members have already published sustainability reports per ASRS guidelines

The ACA recommends members explore public sustainability reports (per the ASRS guideline) by existing ACA members for further direction. AASB reporting guidance can be sought through the AASB S1 and S2 guidance information provided by the Australian Treasury Department.

[8]*Australian Auditing and Assurance Standards Board, Australian Standard on Sustainability Assurance ASSA 5010 Timeline for Audits and Reviews of Information in Sustainability Reports under the Corporations Act 2001, Commonwealth of Australia, (2025).*
[9]*Australian Accounting Standards Board, AASB S1 General Requirements for Disclosure of Sustainability-related Financial Information [voluntary], Commonwealth of Australia, (2024).*
[10]*Australian Accounting Standards Board, AASB S2 Climate-related Disclosures, Commonwealth of Australia, (2024).*

3.2 ASRS Company Reporting

The Auditing and Assurance Standards Board (AASB) has outlined a phased approach to implementing disclosed information assurance requirements, commencing with limited assurance of disclosures from Year 1 of reporting and ending with reasonable assurance over the timeframe identified in Table 2.

Assurance:

In the context of creating a sustainability-related disclosure, per AASB S1 and S2, an organisation will be required to provide stakeholders (e.g. regulators, the public, and shareholders) with confidence that their Climate-related Disclosures are accurate, complete, and prepared in accordance with the relevant standards (per ASSA5000).

Limited Assurance:

The practitioner (auditor) provides a conclusion that nothing has come to their attention to indicate that the information is not prepared, in all material respects, in accordance with the applicable criteria. It is important to note that while the level of scrutiny is lower under limited assurance, directors remain responsible for ensuring that the information disclosed is accurate and complete. If the information is found to be misleading or incorrect, directors could face legal and regulatory consequences.

In the context of emissions records for a principal contractor, limited assurance may be demonstrated through an industry-recognised financial data-backed model, such as the Environmentally Extended Input-Output (EEIO) method for calculating Scope 3 emissions. By analysing financial transaction data for Scope 3 categories, EEIO models estimate the emissions associated with the production and consumption of goods and services upstream and downstream of the contracted works.

For other Scope 3 categories, alternative data sources such as employee travel records or waste registers may be required. In some cases, professional guidance may be necessary to identify the appropriate documentation needed to satisfy limited assurance requirements for each relevant category.

Reasonable Assurance:

The audit practitioner provides a positive opinion that the information is prepared, in all material respects, in accordance with the applicable criteria. The higher level of scrutiny means that directors must ensure a greater degree of accuracy and completeness in the disclosed information.

In the context of emissions records for a principal contractor, achieving reasonable assurance may require a combination of data gathering and record consolidation to ensure the accuracy, completeness, and verifiability of the data to the auditor and to give directors confidence. Reasonable assurance records may include qualitative and quantitative data, such as company policies, subcontracts, tender estimates, life cycle assessments, financial transaction records and cost reports.

Organisation should seek advice from a suitably qualified professional on the nature of records required to achieve reasonable assurance across all of your organisation's Scope 3 categories.

[11] *SLR Consulting Limited, Australian Sustainability Reporting Standards (ASRS) – Assurance Readiness: how to ensure your disclosures are ready for assurance and verification, (November 2023).*

Table 2 - Assurance Requirements Over Time[11]

Disclosures	Year 1	Year 2	Year 3	Year 4*	Year 5	Year 6
Governance	Limited	Limited	Limited	Reasonable	Reasonable	Reasonable
Strategy – Risks & Opportunities*	Limited*	Limited	Limited	Reasonable	Reasonable	Reasonable
Climate Scenario Analysis	None	Limited	Limited	Reasonable	Reasonable	Reasonable
Transition Plans	None	Limited	Limited	Reasonable	Reasonable	Reasonable
Risk Management	None	Limited	Limited	Reasonable	Reasonable	Reasonable
Scope 1 & 2 Emissions	Limited	Limited	Limited	Reasonable	Reasonable	Reasonable
Scope 3 Emissions	N/A	Limited	Limited	Reasonable	Reasonable	Reasonable
Climate-related Metrics & Targets	None	Limited	Limited	Reasonable	Reasonable	Reasonable

**Confirm with AUASB standards as to the exact nature of requirement for reporting group for this disclosure, and timeline.*

3.3 Penalties

The Australian Securities and Investments Commission (ASIC) has the authority under the Corporations Act to instruct reporting entities to make modifications, completions, or corrections in their sustainability reports. Failure to comply with ASIC's instructions regarding sustainability reports can lead to legal action and/or a fine of 60 penalty units (~$18,780).

ASIC has outlined their views of a proportionate approach to supervision and enforcement of the sustainability reporting requirements, these include:

- Consideration on how to support entities as they phase into differing disclosures and providing an opportunity to correct incorrect or misleading information at their discretion.

- Undertaking enforcement investigations where misconduct of a serious or reckless nature is suspected, or an entity fails to make a disclosure as required under the Corporations Act.

The ACA recommends that constructors should also be familiar with ASIC's regulation and guidance notes issued on the matter of greenwashing and claims made by organisations on emissions and other sustainability concerns. ASIC has provided recent greenwashing interventions[12] and Information sheet 271 How to avoid greenwashing when offering or promoting sustainability-related product.[13]

[12] *Australian Securities and Investment Commission (ASIC), ASIC's recent greenwashing interventions, Report 763 (May 2023).*
[13] *Australian Securities and Investment Commission (ASIC), How to avoid greenwashing when offering or promoting sustainability-related products: Information Sheet 271, (June 2022).*

4 GHG Accounting Principles

Consolidation & Boundary Setting

The principles of GHG accounting, as defined within the GHG Protocol (Chapter 1, page 6 – 9)[14], are the foundation upon which all estimations and calculations of carbon emissions are based.

What purpose do they serve?

Simply put, the GHG accounting principles are the ethical bounds by which entities make claims about their GHG emissions.

Who do they apply to?

Everyone making claims about emissions per GHG Protocol and the NGERs Act.

How do they apply to calculating emissions?

Rarely is it practical to physically measure the amount of gas a machine, facility or activity emits. Therefore, carbon emission estimates are based on the best-known scientific data on a relevant unit rate of CO_2 equivalent (CO_2e) for a product produced (e.g. tonne of stone quarried) or energy unit burnt (e.g. litre of diesel). GHG accounting principles provide the foundation for ensuring confidence in these estimations.

Why are they relevant to construction?

To instill trust and maintain the industry's social license. Construction's diverse supply chain relies on standardised Emissions Factors (EFs), such as $kgCO_2e$ per tonne of Portland cement or environmental product declarations (EPDs) global warming potential (GWP) data, to help us calculate the absolute or intensity-based emissions from an activity all of which requires **completeness, consistency,** and **transparency** from the material producer. Without the GHG accounting principles we would not be able to assign responsibility or quantity for a given products' or energy units' emissions fairly or universally for a given activity.

How can they be applied to constructor's reporting challenges?

The ACA provides examples of when they might be applied, such as in **Section 6.4** where we discuss how to arrive at organisational Scope 3 emissions category boundaries, or how to apply responsibility for emissions between a contractor and subcontractor in **Section 5.5.1**.

When calculating emissions, the following accounting principles apply:

1. **Relevance** – Ensure the GHG inventory appropriately reflects the GHG emissions of the company and serves the decision-making needs of users of the data – both internal and external to the company.

2. **Completeness** – Account for and report on all GHG emission sources and activities within the chosen boundaries. Disclose and justify any key exclusions.

3. **Consistency** – Use consistent methodologies to allow for meaningful comparisons of emissions over time. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.

4. **Transparency** – Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.

5. **Accuracy** – Ensure that the quantification of GHG emissions is systematically neither over nor under actual emissions, and that uncertainties are reduced as far as practicable. Achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information.

The ACA also considers a sixth principle for contractors in the calculation of emissions and boundary setting activities:

6. Data integrity and availability – this includes the ability to garner relevant data with confidence or the ability to transform an aspect of the emissions reporting canvas over time through industry transformation.

[14] *World Resources Institute & World Business Council for Sustainable Development, Corporate Value Chain (Scope 3) Accounting and Reporting Standard: Supplement to the GHG Protocol Corporate Accounting and Reporting Standard, (September 2011).*

5 Setting Emissions Boundaries

Consolidation & Boundary Setting

Reporting Legislation

5.1 Defining the Inventory Boundary

In line with the GHG Protocol, entities define an 'organisational' or 'inventory' boundary to determine which emissions fall within their reporting scope. In delineating this boundary, they should consider factors that reflect the substance and operational reality of their activities. including:

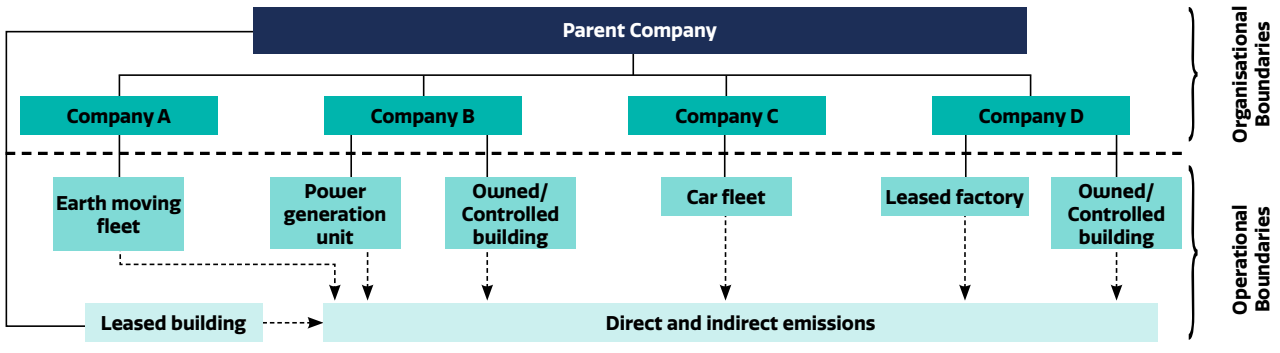
- The structural framework of the organisation, including aspects of control and ownership, legal structure, and any joint ventures.
- Any operational boundaries, which encompass on-site and off-site activities, processes, and services, along with their impacts.
- The business context, entailing the nature of activities, geographical location, sector, as well as the purpose and intended recipients of the information.

Defining the inventory boundary includes a two-step process (per Figure 2):

- Establish the **Organisational Boundary**: This revolves around defining the control and ownership parameters of the organisation.
- Determine the **Operational Boundary**: This involves defining the range of on-site and off-site activities, processes, and services that the organisation is responsible for (**see Section 6)**.

The ACA recommends contractors prepare a basis-of-preparation report for their own organisation so their boundaries are clearly and consistently recorded. This helps to track how emissions reporting is formulated for their own benefit and enables more efficient communication across the organisation. This consistency is especially critical when a parent company reports on behalf of multiple entities, as it supports a transparent, repeatable approach that accommodates structural complexity without compromising clarity.

Figure 2 - Organisational & Operational Boundaries (GHG Protocol)[5]



[5]*World Resources Institute, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, World Business Council for Sustainable Development, (2004)*

5.2 Organisational Boundaries

Organisational boundary setting, while challenging to achieve across global reporting footprints, ensures consistency of emissions tracking, enables meaningful progress in target tracking, and fosters industry comparability. The organisational boundary defines which facilities, entities, and projects constitute the holding company's GHG inventory and how their emissions are accounted for.

To define organisational boundaries two distinct approaches can be applied: the equity share and control approaches (financial and operational). A detailed explanation of how the emissions are accounted under these approaches is provided in the GHG Protocol, Chapter 3 (pages 16 – 23)[5]) including Table 2, which provides an overview of organisational

Table 3 - GHG Protocol Organisational Boundary Approaches (GHG Protocol, 2004, Chapter 3, Pages 16-23)[5]

Approach		Key Factors	Emissions accounting
Control-based	**Financial control**	· The ability to direct the financial and operating policies with a view to gain economic benefits. · Economic substance of the relationship takes precedence over the legal ownership status	If yes: 100% If no: 0% If joint: % owned
	Operational control	· Authority to introduce and implement its operating policies at the operation.	If yes: 100% If no: 0%
Equity share		· A company accounts for GHG emissions from operations according to its share of equity in the operation.	% equity share

When selecting a consolidation approach, the ACA encourages contractors and their parent companies, wherever practical, to employ an operational control approach to define their organisational boundary for all contracting within Australia. With this method, the entity may report on 100% of the GHG emissions from units over which it has operational control to contribute to the consistency of emissions reporting already in place within the industry This approach is consistent with ASRS and NGERs and could aid the industry in streamlining emissions reporting by minimising reporting gaps and reducing the double counting of emissions.

The ACA recommends that the highest Australian-based controlling corporation should be reflected in any external emissions reporting. The Clean Energy Regulator Guidance[15] provides direction on identifying the NGERs reporting entity.

The ACA further notes that revisions to the GHG Protocol organisational boundary-setting approaches have been identified by the GHG Protocol as a key focus for the planned 2026 draft revision of the Corporate Accounting and Reporting Standard.

[5]*World Resources Institute, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, World Business Council for Sustainable Development, (2004)*
[15]*Clean Energy Regulator, Australian Government, NGER reporting guides (August 2024).*

5.3 Determining Operational Control

To determine whether the contractor or parent company has operational control over an operation, the ACA recommends reviewing the legislative criteria outlined in Table 4.

Table 4 - Operational control and guidance

Projects and facilities within Australia	
How does NGERS operational control relate to construction?	Contractors report organisational boundaries consistent with the National Greenhouse and Energy Reporting Act 2007 ("the Act" or "NGER Act")[4], Section 11, 11A, and 11B for projects within Australia, which applies the operational control reporting approach.
Where to start when determining operational control?	Section 11 of NGERs states that an organisation holds operational control if it has the authority to introduce and implement any or all the following at a facility: · Operating policies · Health and safety policies · Environmental policies If more than one organisation can satisfy this definition, then the organisation that has the greatest authority to introduce and implement the Operating and Environmental (excluding Health and Safety) policies is considered to have operational control.
What industry specific guidance does ACA provide?	In the context of construction, the introduction and implementation of the above policies are interpreted as the following activities: · Management plans, including project, environmental and health and safety · Purchasing, maintaining and refueling machinery and vehicles · Engagement with regulators In projects where parties share responsibilities to introduce and implement operating, health and safety, and environmental policies, either party could take operational control. Section 22 of the NGER Act allows for parties to enter into a written agreement to nominate the controlling corporation for the purposes of operational control, this is especially practical in the context of joint venture projects.
Projects and facilities outside of Australia	
How is jurisdictional authority classified?	Contractors apply the relevant boundary methodologies that are consistent with any jurisdictional authority or exchange which requires emissions reporting in the location of the project.
What to do in the absence of an authority?	If there is no applicable judicial authority or exchange, then it is recommended that contractors acting as the 'principal contractor' on the project take on operational control.

In navigating NGER Act reporting, the ACA recommends advises contractors to consult the ACA Industry Discussion Paper[16]. This paper recommends companies use a standard scorecard for determining operational control. The scorecard proposed in this document has been reproduced in **Appendix B** for quick reference.

Example A: Joint Venture Contracts
Contractors A and B win a project and incorporate a joint venture to deliver it. The joint venture is a 50/50 financial split, has hybrid systems and developed their own policies on the JV, making it difficult to determine who has control over the JV. However, at establishment, the contractors employ the Operational Control Scorecard in **Appendix B** and find that because Contractor B exercises the majority control over policies , they have operational control and will report all the project's emissions.

Example B:
A three-party joint venture is formed for Project X, Contractor 1 has a 40% financial stake and controls the systems, with 2 & 3 holding 30% each. Contractor 1 reports 40% under the equity share approach, and 100% under the operational control and financial control approaches.

[4]Department of Climate Change, Energy, the Environment and Water, National Greenhouse and Energy Reporting Act 2007, (March 2024)
[16]Australian Constructors Association (ACA) National Greenhouse and Energy Reporting Scheme Discussion Paper, (2011)

5.4 Defining the Emissions Reporting Group

In the context of organisation boundaries, for Scope 1 and 2 emissions reporting, the **ACA recommends including the controlling entity in company group reporting** outlined in Table 5.

Table 5 - Emissions Reporting Group

Controlling Corporation	Only the controlling corporation itself and its subsidiaries (defined by the Corporations Act 2001[2]). If an entity owns more than 50% of an investment of subsidiary, it may be required to be included within their organisational boundary.
Projects	Report on 100% of the emissions associated with projects, for which the company has operational control, as defined in Section 1.1.a, regardless of its equity share.

If the controlling corporation is international, review the reporting requirements to determine whether only Australian-based operations should be included.

5.4.1 Subcontractor Activity Reporting in Australia

Based on the principles of NGERs operational control, the activities of subcontractors fall under the reporting responsibility of the party with operational control. Therefore, the ACA recommends that organisations establishing their reporting frameworks include subcontractor activity in the emissions reporting of Australian contractors and holding companies.

To facilitate this, it is crucial that subcontractors supplying their own fuel and materials to the site provide their data to the operational control party during the normal course of reporting. It is assumed that bulk fuel and directly purchased materials and energy will be captured by the head contractor during normal reporting.

Considering this, the **ACA recommends contracts expressly require subcontractors to provide fuel and materials data (including, but not limited to, type and volume of fuels and electricity) to the operational control party at minimum monthly.** This ensures the operational control party can meet reporting obligations. If the controlling corporation is international (this also extends to those companies employing equity share and financial control approaches so they are fully apprised of project emission footprints), it is recommended to include only Australian-based operations. Further detail on this is provided in Section 7.2 of this guideline.

OPERATIONAL CONTROL SUBCONTRACTING BOUNDARIES UNDER NGERs

Should subcontractor supplied energy and materials be included in my emissions boundary? **Yes**

- Subcontractor activities fall under the reporting responsibility of the party with operational control and should be included in the entities emissions reporting.
- Subcontractors supplying fuel and materials to the site should provide their data to the operational control entity during agreed reporting cycles.
- Directly purchased bulk fuel, materials, and energy will be captured by the head contractor during normal reporting.

The ACA recommends subcontracts require fuel and materials data to be provided to the operational control party at minimum monthly. For consistency, and in line with the ASRS, the ACA recommends contractors also apply this approach to projects and facilities outside of Australia, unless this approach contradicts jurisdictional or exchange reporting requirements. In this case subcontractor self-supplied fuel should be included in Scope 3 Category 3.

Should fuel supplied to subcontractor assets be included in my emissions reporting? **Yes. See above.**

[2] *Attorney-General's Department of the Treasury, Corporations Act 2001, (July 2024)*

6 Operational Boundaries

Consolidation & Boundary Setting

Reporting Legislation

An effective corporate strategy for addressing climate change requires a thorough understanding of a company's greenhouse gas emissions across its operations. Therefore, defining operational boundaries, or categorising those emissions that are defined by specific sources (e.g. electricity), is the next step in holistically managing an organisations emissions profile.

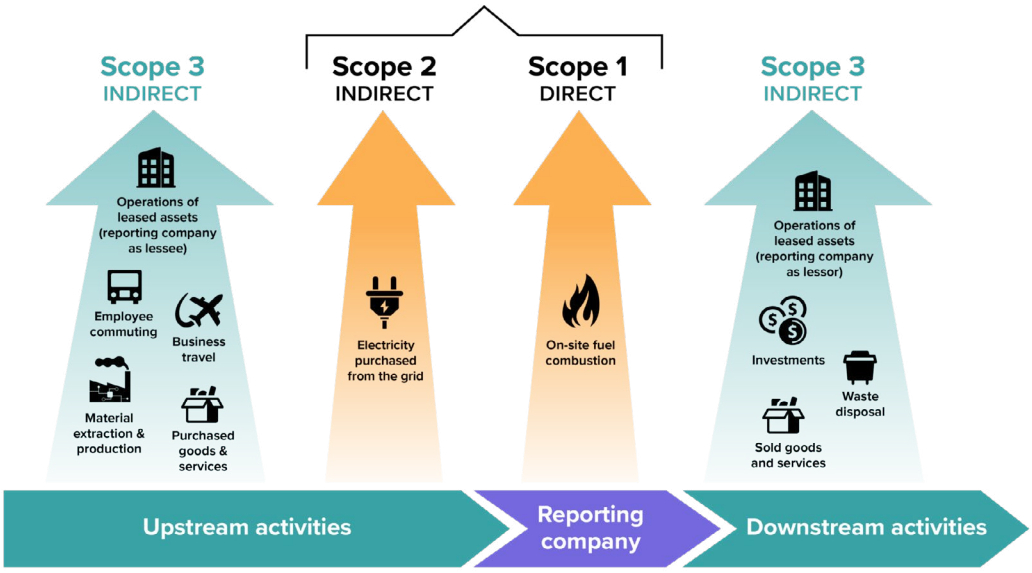
The ACA recommends that contractors, for all projects or operational units under their corporate structure, make all reasonable endeavours to fully understand and measure the following:

- **Scope 1 Emissions:** direct emissions from a company's activities, including on-site fuel combustion, fleet fuel use, refrigerants and SF6.
- **Scope 2 Emissions:** indirect emissions from purchased electricity, steam, heat, or cooling.
- **Scope 3 Emissions:** indirect greenhouse gas emissions that occur outside of an organisation's boundaries as a result of its actions (e.g. subcontracting works).

For contracting activities within Australia, refer to NGERs guidelines[10] and ASRS AASB S2[10] for setting operational boundaries. Outside of Australia, follow the applicable authority or exchange standards. If none exist, use methodologies consistent with the GHG Protocol Standards, with preference to Australian emissions factors and calculation methodologies.

In this section, the guideline outlines appropriate measures to set organisational boundaries for Scopes 1, 2 and 3, with technical references primarily sourced from Chapter 4 of the GHG Protocol Corporate Reporting Standard[5]. However, the primary focus of this emissions reporting guideline is Scope 3 methodologies. A review of the application of the different emissions guidelines is contained in **Appendix D**, and may provide contractors with insights into how their existing reporting frameworks align or depart with those discussed in this guideline.

Figure 3 - Emission Scopes[17]



[5]World Resources Institute, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, World Business Council for Sustainable Development, (2004)
[10]Australian Accounting Standards Board, AASB S2 Climate-related Disclosures, Commonwealth of Australia, (2024).
[15]Clean Energy Regulator, NGER reporting guides (August 2024).
[17]Building Innovation Hub, Understanding Building Emissions: Learn the role buildings play in decarbonization (2024).

6.1 Scope 1 Operational Boundaries

Contractors report GHG emissions from sources they own or control as Scope 1. Combined with the selected organisational boundary approach, the following steps should be followed to map out Scope 1 emissions:

- **Identify all sources** – In the context of construction contracting, Scope 1 direct emissions are typically the result of the following sources:
  - **Fleet** – These emissions result from combustion of fuels in company owned or leased vehicle fleets
  - **Plant and Equipment** – These emissions may result from the combustion of fuels in company owned/leased combustion sources (e.g., trucks, excavators, buses, generators)
- **Categorise emissions** – into stationary combustion, mobile combustion, process, and fugitive emissions
- **Collect activity data** – gather data such as fuel usage, equipment hours, and invoices
- **Apply emissions factors** – use relevant emissions factors to convert activity data into CO_2 equivalent emissions
- **Document assumptions and sources** – ensure transparency by recording:
  - Data sources
  - Emission factors used
  - Any exclusions or estimates

By completing these steps, the contractor can ensure their emissions reporting is consistent, transparent, and accurate.

SCOPE 1 COMMON OPERATIONAL BOUNDARY CHALLENGES

Confusion around Scope 1 emission boundary setting arises when the contractor enters arrangements for self-performing packages of work on a given project (Note: consolidation approaches will have differing outcomes between control and equity share in the context of these examples – e.g. Operational control will account for all subcontractor emissions on a given project)

- **Asset Ownership** – If a contractor owns the assets/plant creating the emissions and they lend to a subcontractor to use it, the emissions are still considered Contractor's Scope 1.
- **Fuel Arrangements:**
  - If a subcontractor is purchasing fuel for equipment/plant that is owned, leased, or hired by the contractor, emissions are deemed Scope 1 for the contractor.
  - If a subcontractor is purchasing fuel that is used for their own equipment off-site, emissions are considered Scope 3.
  - If the contractor is providing a subcontractor fuel for their equipment, emissions are considered Scope 1.
  - Best practice for fuel supply should see the contractor and subcontractor agree emissions responsibility within the plant hire/subcontract agreement.
- **Offsets** – when purchased from the subcontractor, the associated emissions remain classified under Scope 3; however, they are recorded in the ledger as net zero, reflecting their presence for transparency while carrying no attributable carbon value.

When fuel usage arrangements are unclear, conducting an emissions relevancy assessment, such as Climate Active's relevance test, is a sound approach for determining Scope 1 and 3 ownership. This method helps allocate responsibility based on the extent of organisational benefit derived from the activity. **Where relevance is indeterminate, the ACA recommends to apply the NGERs facility definition, in which case the contractor would report the emissions under their Scope 1 and 2 categories in accordance with the principle of operational control.**

6.2 Scope 2 Operational Boundaries

GHG emissions from indirect sources such as purchased electricity, steam, heating, and cooling generated off-site are typically reported through Scope 2. These emissions occur at the facility where the energy is generated but are attributed to the company that uses the energy. Combined with the selected organisational boundary approach, the following steps should be followed to map out Scope 2 emissions:

- **Identify all purchased energy sources** – In the context of construction contracting, Scope 2 indirect emissions are typically the result of the following sources:
  - Offices
  - Construction sites and temporary facilities
  - Depots or workshops
- **Apply dual reporting requirement** – The GHG Protocol requires two methods for Scope 2 reporting:
  - **Location-based reporting** shows the actual emissions from the local power grid at the facility.
  - **Market-based reporting** highlights how energy purchasing decisions reduce emissions and uses emission factors from contractual instruments (e.g., renewable energy certificates, supplier-specific emissions).
  - An organisation's general ledger may be utilised to record both location and market-based Scope 2 metrics to determine the quantum of emissions avoided through contracted arrangements.
- **Collect activity data** – Gather data such as kWh of electricity used, source of energy (e.g. grid, renewables, etc.) and contracts or certificates for renewable energy.
- **Apply emissions factors** – use relevant emissions factors to convert activity data into CO_2 equivalent emissions, such as national or regional grid factors (location-based) and supplier-specific or certificate-based factors (market-based)
- **Document Assumptions and Sources** – ensure transparency by recording data sources, emission factors used and any exclusions or estimates.

SCOPE 2 GREENPOWER IN CONTRACTING EXAMPLE

A civil contractor operating several major site offices on a project in Queensland over the course of a year, consumes 100,000 kWh of electricity. To reduce their carbon footprint, they purchase 100,000 kWh worth of GreenPower renewable energy certificates (RECs) through their retailer. How this is accounted for is detailed below:

Method	Energy Used (kWh)	Emission Factor (kg CO_2e/kWh)	Emissions (t CO_2e)
Location-Based	100,000	0.81 (local grid average)	81 – This value is reported regardless of REC purchases.
Market-Based (RECs)	100,000	0.00	0 – The contractor can report zero emissions under this method due to the REC purchase.

Using dual reporting ensures transparency and aligns with the GHG Protocol Scope 2 Guidance the contractor demonstrates environmental leadership while maintaining compliance.

6.3 Scope 3 Operational Boundaries

Although NGERS does not require detailed Scope 3 reporting, ASRS obliges entities to disclose Scope 3 emissions when their Group is subject to reporting, using the GHG Protocol emission categories outlined below:

The reporting entity shall disclose the categories included within the entity's measure of Scope 3 greenhouse gas emissions, in accordance with the Scope 3 categories described in the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011); and additional information about the entity's Category 15 greenhouse gas emissions (con'td AASB S2 – Metrics and Targets);

The ACA endorses this approach as a pragmatic way for contractors to identify Scope 3 emission sources. Most ACA members identified significant challenges in setting operational boundaries, particularly relating to Scope 3 emissions. As the ASRS does not prescribe a specific method for defining Scope 3 boundaries, beyond recommending alignment with the GHG Protocol, this guideline outlines common approaches adopted by contractors. Table 6 summarises the standards various contractors use to calculate and define their Scope 3 emissions footprint.

Table 6 – Scope 3 Calculation Methods

Standards	Operational Boundaries Differences to GHG Protocol	Scope 3 Category Differences to the GHG Protocol
ASRS	Permits use of a different method to GHG Protocol for measuring GHG emissions when required to do so by a jurisdictional authority or an exchange on which the entity is listed.	ASRS references 15 GHG Protocol Scope 3 GHG emission categories as examples an entity might consider when disclosing its Scope 3 emission sources, without mandating that entities report emissions according to these specific categories.
European Sustainability Reporting Standards (European Union Corporate Sustainability Reporting Directive)18	None, however, ESRS E1 provides relief for entities in the first reporting period.	None
IFRS S2 Climate-related disclosures (ISSB)19	Aligns with the GHG Protocol Scope 3 Standard.	None

6.4 Setting Scope 3 Boundaries for Contractors

Setting Scope 3 operational boundaries under the GHG Protocol Corporate Value Chain (Scope 3)[5] involves identifying and accounting for indirect emissions that occur in the value chain, both upstream and downstream of a contractor's operations. These emissions are not owned or directly controlled by the company but are a consequence of its activities. Combined with the selected organisational boundary approach, the following steps should be followed to navigate Scope 3 operational boundary setting:

- **Identify categories** – against the 15 GHG protocol Scope 3 categories:
  - **Upstream:** e.g. Purchased goods and services, capital goods, transportation, waste, travel,
  - **Downstream:** e.g. Use of sold products, end-of-life treatment, downstream transportation
- **Testing for relevance** – evaluate which categories are material based on: magnitude of emissions, influence on stakeholders, risk exposure, outsourcing or supply chain significance
- **Collect Data** – Gather activity data from suppliers, customers, internal systems (e.g. logistics, HR)
- **Choose Calculation Methods** Use one or more of the following:
  - Supplier-specific data
  - Hybrid methods (activity data & emission factors)
  - Spend-based methods (financial data & emission factors)
- **Document Assumptions and Sources** ensure transparency by recording:
  - Data sources
  - Emission factors used
  - Any exclusions or estimates

[5]*World Resources Institute, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, World Business Council for Sustainable Development, (2004)*
[18]*The European Parliament and the Council of the European Union, The Corporate Sustainability Reporting Directive, (December 2022).*
[19]*International Sustainability Standards Board (ISSB), IFRS S2 Climate-related Disclosures, (June 2023)*

6.4.1 Identifying Categories

The ACA recommends contractors to undertake a Scope 3 category identification to determine which of these categories are most pertinent to their operations (per GHG Protocol Standard[5]). Constructors should look to engage suitably qualified professionals to help them determine emissions category relevance and materiality to their operations to ensure the selection aligns with the required completeness of reporting expected by shareholders and regulators.

Table 7 below examines the GHG Protocol Scope 3 categories and compares them for relevance with the operations of a typical construction contractor's activities. While the ACA supports the category selection approach presented in the table below, constructors should incorporate into their Scope 3 management approach only those emissions that have been appropriately calculated and verified by suitably qualified professionals. Additionally, each linked GHG Protocol category chapter contains subcategories that can be analysed to provide granular insights into the applicability of each category

Table 7 – GHG Protocol Scope 3 Reporting Categories Relevance Assessment

Categories	Industry Examples of Emissions	Contracting Relevance
Upstream Scope 3 Emissions		
1. **Purchased goods and services** – Extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise included in Categories 2 – 8	Embodied carbon of materials purchased (e.g. concrete, steel, asphalt). Includes materials provided by subcontractors. Contractor's emissions are impacted by project material selection	HIGH
2. **Capital goods** – Extraction, production, and transportation of capital goods purchased or acquired by the reporting company in the reporting year	Emissions from the manufacturing and transportation of construction machinery	MEDIUM
3. **Fuel and energy related activities** (not included in scope 1 or scope 2) – Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2, (e.g. upstream emissions of purchased fuels associated with extraction, production and transport)	Emissions associated with generating the electricity that is lost during transmission to the site are included here. All upstream (cradle-to-gate) emissions of purchased fuels (from raw material extraction up to the point of, but excluding combustion)	MEDIUM
4. **Upstream transportation and distribution** – Transportation and distribution of products purchased by the reporting company in the reporting year between a company's tier 1 suppliers and its own operations (in vehicles and facilities not owned or controlled by the reporting company). Transportation and distribution services including inbound logistics, outbound logistics (e.g. of sold products), and transportation and distribution between a company's own facilities (in vehicles and facilities not owned or controlled by the reporting company)	Emissions from the transportation of concrete, steel, and other materials from suppliers to the construction site	HIGH
5. **Waste generated in operations** – Disposal and treatment of waste generated in the reporting company's operations in the reporting year (in facilities not owned or controlled by the reporting company)	Scope 1 and 2 emissions of waste vendors. Emissions associated with the disposal of materials from demolished structures	HIGH
6. **Business travel** – Transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the reporting company	Emissions from flights, taxis, rail and personal vehicles	LOW

Categories	Industry Examples of Emissions	Contracting Relevance
7. **Employee commuting** – Transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the reporting company)	Emissions from the daily travel of all employees from their homes to the construction site, often in private vehicles	LOW
8. **Upstream leased assets** – Operation of assets leased by the reporting company (lessee) in the reporting year and not included in scope 1 and scope 2 – reported by lessee	Emissions from the operation of leased equipment, such as cranes or generators, used on-site but not owned by the contractor	LOW
Upstream Scope 3 Emissions		
9. **Downstream transportation and distribution** – Transportation and distribution of products sold by the reporting company in the reporting year between the reporting company's operations and the end consumer (if not paid for by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company)	***Likely Exclude:*** Most structures are fixed and not transported after construction	UNLIKELY TO APPLY
10. **Processing of sold products** – Processing of intermediate products sold in the reporting year by downstream companies (e.g. manufacturers)	***Likely Exclude:*** Unlikely for further processing of sold products. Refurbishment by third parties cannot be estimated due to limited availability of reliable data	UNLIKELY TO APPLY
11. **Use of sold products** – End use of goods and services sold by the reporting company in the reporting year	Emissions by structures after construction (e.g. HVAC in buildings, streetlights on a road project, systems in a rail project)	LOW
12. **End-of-life treatment of sold products** – Waste disposal and treatment of products sold by the reporting company (in the reporting year) at the end of their life	***Likely Exclude:*** Design life of most products constructed are >50 years and therefore, no reasonable estimates can be achieved	UNLIKELY TO APPLY
13. **Downstream leased assets** – Operation of assets owned by the reporting company (lessor) and leased to other entities in the reporting year, not included in scope 1 and scope 2 – reported by lessor	Emissions of owned assets used by another company (in the case of a JV partner with operational control using our assets; this would be in Category 15)	MEDIUM
14. **Franchises** – Operation of franchises in the reporting year, not included in scope 1 and scope 2 – reported by franchisor	***Likely Exclude:*** Most contractors do not operate franchises	UNLIKELY TO APPLY
15. **Investments** – Operation of investments (including equity and debt investments and project finance) in the reporting year, not included in scope 1 or scope 2	Scope 1 and 2 emissions of JV partners and equity stake in organisations	MEDIUM

ACA recommends that any category exclusions should be disclosed and justified as per the GHG Protocol Standard[14].

[14] *World Resources Institute & World Business Council for Sustainable Development, Corporate Value Chain (Scope 3) Accounting and Reporting Standard: Supplement to the GHG Protocol Corporate Accounting and Reporting Standard, (September 2011).*

6.4.2 Testing for Relevance

This stage focuses on identifying relevant Scope 3 categories, conducting a preliminary emissions screening across the value chain, and pinpointing potential "hotspots"—areas where emissions are likely higher and require more focused attention. This phase helps companies understand where they should prioritise their efforts for more detailed data collection and analysis.

For the initial screening, contractors should evaluate emission sources based on the criteria in Table 8, and any other available sector-based guidance, to identify the most relevant categories for Scope 3 reporting. This evaluation will help identify the most material Scope 3 sources that should be included in the company's reporting.

Table 8 - Scope 3 Relevance Criteria

Criteria	Method
Size	Focus on emissions that are expected to constitute a sizeable portion of the company's overall Scope 3 footprint.
Influence	Although Scope 3 emissions are indirect and outside a company's operational control, prioritise those sources where the company has greater potential to act and reduce these emissions.
Risk	Consider emissions that could expose the company to climate change-related risks. Key factors to evaluate include: • **Regulation:** Potential climate change legislation that may affect suppliers or customers. • **Supply Chain Costs and Reliability:** Increased costs passed on to the company or disruptions in supply chain availability due to climate change impacts. • **Product and Technology:** Changes in demand due to market shifts. • **Litigation:** Climate change-related legal actions against any company in the value chain. • **Reputation:** Perceptions from stakeholders or media regarding greenhouse gas management practices and emissions within the value chain.
Stakeholders	Pay attention to emissions that are particularly important to stakeholders, including employees, customers, suppliers, investors, and society at large.
Outsourcing	For activities that are outsourced, which would otherwise be accounted for in Scope 1 or 2 if performed in-house, ensure these outsourced activities are included in the Scope 3 footprint.
Spend Based Analysis	Emissions related to areas of the business that require a high level of spending or generate a high level of revenue (and can be correlated with high GHG emissions)

RELEVANCE TESTING WORKED EXAMPLE

An infrastructure construction company might evaluate its operational waste to determine whether this source of emissions is significant.

Table 9 – Worked Example of Emissions Materiality Assessment

Criteria	Question	Relevance Rating (1–10)	Notes
Size	What proportion of the total expected Scope 3 footprint will these emissions represent?	3	Rough estimates are necessary; a full Scope 3 inventory is not required to identify potentially major sources.
Influence	Can the company directly influence these emissions through operational changes, recycling programs, or external partnerships?	8	Assess the potential for reducing emissions through internal or external actions.
Risk	Are there potential regulatory or market risks associated with these emissions?	9	Evaluate the likelihood of future risks on the company.
Stakeholders	Are employees, customers, investors, or the public concerned about reducing emissions?	9	Consider the importance of these emissions to key stakeholders.
Outsourcing	Is managing this type of waste typically outsourced by similar companies?	1	Determine if internal management is common practice in the industry.
Spend Based Analysis	Do these emissions represent a significant portion of the company's spending?	3	Assess the financial implications of the emissions source.
Relevance Rating (average)		5.5	

The assessment results indicate a relevance rating of 5.5. This rating should then be compared with other emission sources from across the range of Scope 3 categories within the company. An overall analysis is necessary to identify which emissions sources should be prioritised and identify those that may be de minimis (very small or negligible) or whole categories or subcategories that can be excluded from the company's boundary.

6.4.3 Data Collection

Scope 3 reporting is an ongoing process that involves data collection, quality assessment, and continuous improvement. For those organisations new to this process, a two-stage approach is recommended to identify where to concentrate efforts to enhance data quality. The two-part approach involves an initial qualitative screening phase followed by a detailed quantification phase.

- **Qualitative:** Combining the identified categories and relevance criteria with other qualitative inputs from risk assessments (e.g. Considering those categories the company has insights into vs those areas that are currently poorly understood or the systems employed do not cover), internal stakeholders (e.g. finance and accounts, sustainability, operations) and external stakeholders (e.g. clients, subcontractors, suppliers, regulators).
- **Quantitative:** After identifying key areas, this phase involves the comprehensive calculation of Scope 3 emissions. Companies collect detailed data on energy consumption, production volume, purchased goods, business travel and many more areas already. However, there may be some that will require applying industry factors (e.g. employee commuting distances). This phase often includes the automation of data collection and reporting processes to improve accuracy and efficiency. By starting with a broad assessment and then narrowing down to more detailed data collection, companies can navigate the complexities of Scope 3 reporting and gradually improve the quality of their emissions data.

Several GHG publications[20] and calculation tools[21] are available to assist with estimating emissions across Scope 3 categories. The GHG Protocol website offers a range of both cross-sector and sector-specific tools, each providing detailed, step-by-step guidance.

[20] *World Resources Institute & World Business Council for Sustainable Development, Standards & Guidance | GHG Protocol, (2024).*
[21] *World Resources Institute & World Business Council for Sustainable Development, Technical Guidance for Calculating Scope 3 Emissions: Supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard, v1.0, pp. 17-19, (September 2011).*

6.4.4 Calculating Supply Chain Emissions

Each category of scope 3 emissions has a separate set of methods provided by the GHG Protocol for estimation. Category 1 (Purchased goods and services) will likely be the most significant scope 3 emissions for contractors[22]. However, access to supply chain data may be difficult to obtain. The GHG Protocol provides various methods.

Table 10 - Methods for accounting for supply chain emissions

Specificity	Calculation Method	Contracting Context
↑ High	**Supplier-specific method:** Use of product level cradle-to-gate GHG inventory data from goods or services suppliers	Engaging with key suppliers across each product to obtain exact quantities and LCA information.
	Hybrid method: Specific emissions data from key suppliers and using secondary data or extrapolation based on spend data to fill the gaps	Cradle-to-gate emissions factors should either be sourced from a verified secondary database, or a tier 1 supplier. All other emission factors (LCA/waste outputs/ process emissions) should be sourced from the tier 1 supplier
	Average data method: Using volumes/quantity data for products and product emissions factors from LCI databases (e.g., AusLCI)	Procurement should provide volumes and quantities per product category. If some additional product details are available, these can be matched to industry average emissions factors
↓ Low	**Spend based method:** If all other methods are not feasible due to data limitations, companies can use the economic value of purchased products and multiply them by the relevant EEIO emissions factors	Industry average emissions per monetary value of goods. *Note: this is the least preferred approached by the GHG Protocol*

Emissions factors employed in the calculation of Scope 3 emissions should be selected per the inventory and sourced based on the closest emissions factor available considering both geographical location and temporal considerations (identify an appropriate hierarchy, such as product specific / regulatory / national / international, as appropriate to the industry and activity). Emissions factors for calculating Scope 3 emissions in the Australian Contracting context may include the following examples:

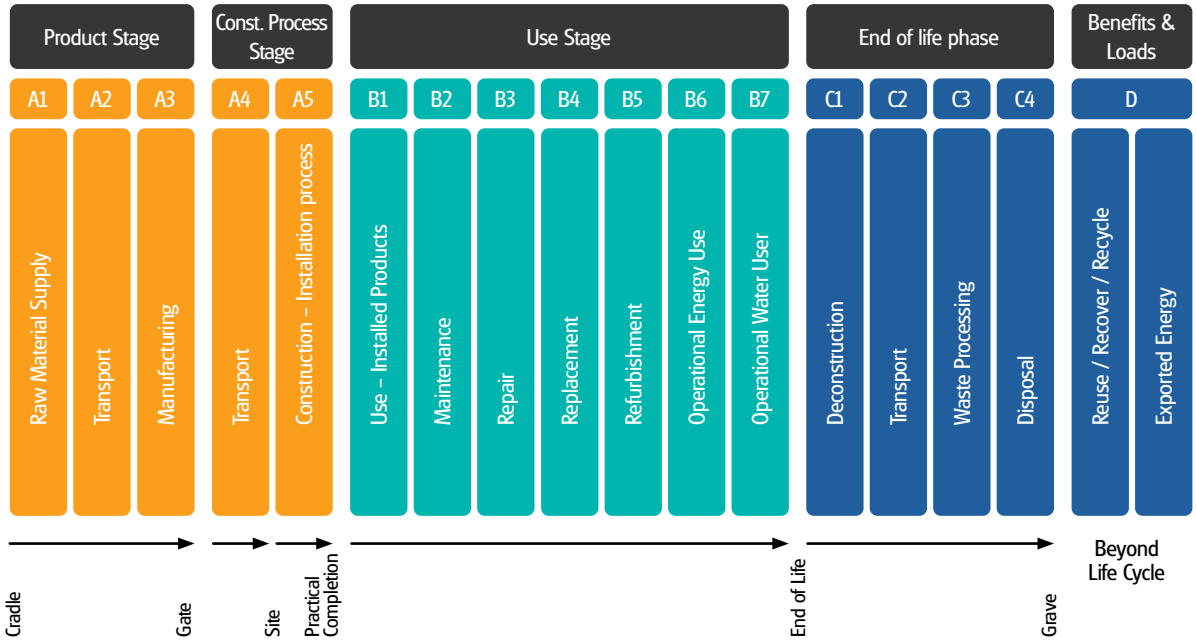
- Australian National Greenhouse Accounts Factors
- UK Department for Energy Security and Net Zero's Greenhouse gas reporting: conversion factors

[22] *CDP Worldwide, CDP Technical Note: Relevance of Scope 3 Categories by Sector, (June 2024).*

6.4.5 Scope 3 and Asset Lifecycles

As part of the screening process, contractors are also advised to review the EN15978 Sustainability of Construction Works Standard to determine where in the construction lifecycle the organisation should apply their focus (e.g., cradle-to-grave or cradle-to-grave per Figure 4). This approach is also consistent to and will assist contractors when reporting emissions against PAS2080[23] and TfNSW Decarbonising Infrastructure Guideline[24] both of which are targeted at the construction lifecycle and not organisationally aligned GHG Protocol Scope 3 categories.

Figure 4 - EN15978 Sustainability of Construction Works Standard - Building & Construction Lifecycle Stages[25]



See **Appendix C** for an ACA members example of Scope 3 screening that includes a high-level summary approach to the screening methods discussed in **Section 6** and includes the life cycle approach.

6.5 Scope 3 and Joint Ventures

According to the GHG Protocol, entities which are excluded from the organisational boundary, due to the chosen consolidation approach still need to be included in the GHG inventory but reported in Scope 3 Category 15 on a pro rata basis. This is applicable to joint venture projects without operational control. If the joint venture has an equity share consolidation approach in place, the ACA recommends that GHG emissions from that joint venture are reported in Scope 3 Category 15. In cases where no or limited access to emissions-related data of the joint venture are available, a reasonable, transparent and traceable calculation should be applied by the contractor and recorded in their basis-of-preparation report (or similarly documented).

[23] *The British Standards Institution, PAS 2080:2023 Carbon Management in buildings and infrastructure, BSI, (2023).*
[24] *NSW Government, Embodied Carbon Measurement for Infrastructure Technical Guidance, (April 2024).*
[25] *European Standards, DIN EN 15978 Sustainability of construction works - Assessment of environmental performance of buildings – Calculation method, (October 2012).*

6.5.1 Joint Venture Scope 3 Considerations

Other matters contractors should consider when entering joint ventures related to Scope 3 include:

- **Boundary Alignment** - ensure that the organisational boundary approach (equity share, financial control, or operational control) is consistently applied across all partners and agreed upon. Misalignment can lead to double counting or omissions in Scope 3 reporting.
- **Data Sharing and Access** – Contractors may not have full access to procurement, logistics, or waste data managed by JV partners. Therefore, it is important to establish clear data-sharing agreements early in the project.
- **Allocation of Emissions** – Scope 3 emissions (e.g. from purchased materials, subcontractors, or transport) must be equitably allocated based on the JV structure. Using activity-based allocation is recommended where possible (e.g. tonnes of material used, hours of equipment operated).
- **Supplier and Subcontractor Engagement** – Ensure all parties are aligned on emissions tracking expectations and encourage consistent supplier questionnaires or emissions reporting templates.
- **Transparency and Documentation** – Document assumptions, boundaries, and allocation methods clearly. This ensures transparency which is critical for certifications, and parent company audit.
- **Relevance and Materiality for the joint ventures** – Apply the GHG Protocol Relevance Test to determine which Scope 3 categories are significant for the JV and focus on high-impact areas like purchased materials, transport, and waste.

7 Reporting Entity

Consolidation & Boundary Setting

Reporting Legislation

The ACA recommends that the controlling corporation should be reflected in emissions reporting. A controlling corporation is a constitutional corporation that does not have an Australian-incorporated holding company[4]. It is usually the corporation at the top of the corporate hierarchy in Australia. It can be a non-operational holding company that does not handle day-to-day business. A controlling corporation can also be a foreign-incorporated entity that operates directly in Australia without an Australian-incorporated subsidiary. If you are having trouble identifying your controlling corporation, seek advice from appropriately qualified professionals.

7.1 Group Reporting

A controlling corporation's group may consist solely of the controlling corporation or may also include its subsidiaries. The term 'subsidiary' is defined in the Corporations Act 2001[3]. If the controlling corporation is a foreign company, its subsidiary's emissions must be included in emissions reporting, provided the subsidiary submits a financial report under Chapter 2M of the Corporations Act 2001 and meets the sustainability reporting thresholds outlined in the legislation (see Australian Treasury 2024, Mandatory Climate-Related Financial Disclosures: Policy Position Statement, part. 3).

Table 11 – Group reporting boundaries

For Projects	Report on 100% of the emissions associated with projects for which the organisation has operational control (per Section 11, subsection 1(a)[26]), regardless of equity share.
For Investments / Subsidiaries	If the entity owns more than 50% of an investment of a subsidiary, include the emissions in the organisational boundary.

For Scope 1 and Scope 2 greenhouse gas emissions, we recommend breaking down the emissions into two categories by applying the Australian Accounting Standards[1].

Table 12 – Scope 1 & 2 Grouping

Consolidated Accounting Group	Those emissions from the main group of companies, including the parent company and its subsidiaries.
Other Investees	Those emissions from other investments, like associates, joint ventures, and subsidiaries not fully included in the main group.

In Australia, less significant subsidiaries and associated companies are recorded in the group financial statements at amortised costs. As a result, their associated greenhouse gas emissions are assumed to be de minimis, and could potentially be considered for omission from group emission reporting, pending professional guidance.

[1] *Australian Accounting Standards Board, Australian Sustainability Reporting Standards – Disclosure of Climate-related Financial Information, (October 2023)*
[3] *Attorney-General's Department of the Treasury, Corporations Act 2001, (July 2024).*
[4] *Department of Climate Change, Energy, the Environment and Water, National Greenhouse and Energy Reporting Act 2007, (March 2024).*
[26] *Clean Energy Regulator, Australian Government, Assess your obligations, (August 2024).*

7.2 Setting Targets

The ACA recommends contractors set emission reduction targets in line with the Paris Climate agreement and, in the process, identify appropriate mechanisms to ensure accountability and transparency within their organisation. Such mechanisms may include:

1. Accreditation through an external audit body to ISO14064: 1-3

2. Registering targets through the Science Based Targets initiative[27] or Climate Active

Tracking against targets may be required to be included in ASRS reporting for the organisation each year once their group is required.

7.3 Offsetting Emissions

ACA recommends that companies disclose their use of carbon credits[28] (transferable or tradeable instruments) to offset emissions used to achieve any net greenhouse gas emissions targets the entity has set, or as required by law or regulation. Information about the planned use of carbon credits shall clearly demonstrate the extent to which they are relied upon to achieve the net greenhouse gas emissions reduction targets. As part of this disclosure, the entity may also include information about carbon credits it has already purchased that the entity is planning to use to meet its net greenhouse gas emissions target. This is particularly pertinent if the information enables users of general-purpose financial reports to understand the entity's greenhouse gas emissions target.[2]

7.4 Metrics and Reporting

The ACA recommends entities adopt sectorial KPIs for emissions intensity. The following KPIs are primary indicators of activity-specific emissions intensity, and the ACA recommends that they should be utilised in disclosures as required. These KPIs align with those already adopted within the Construction CO_2e Measurement Protocol (ENCORD)[29]**.**

Table 13 - Sectorial KPIs

Area of operation	Key performance indicator
Material manufacture	Tonnes CO_2e / unit of product
Construction	Tonnes CO_2e / ($) 1 million turnover (primary indicator)
	Tonnes CO_2e / m^2 gross internal floor area (secondary indicator)
	Tonnes CO_2e / km of road / rail (secondary indicator)
Operation	Kilograms (kg) of CO_2e / m^2 gross internal floor area / annum
	Kilograms (kg) of CO_2e / km road or rail

ASRS encourages entities to look to industry examples of related emissions metrics and it is intended that reporting against these metrics will be included in an entity's general-purpose financial reports sto help shareholders understand the entity's greenhouse gas emissions intensity factors.

Infrastructure Australia and the NSW Government through the Decarbonising Infrastructure Delivery Policy[6] are currently working on initiatives to develop KPIs and activity-specific emissions intensity metrics for the industry. Calculating the feed-in data for the preparation of these KPIs should, at least initially, be undertaken with professional guidance.

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[2]*Attorney-General's Department of the Treasury, Corporations Act 2001, (July 2024).*
[6]*NSW Government, Decarbonising Infrastructure Delivery Policy: Reducing Upfront Carbon in Infrastructure, (April 2024).*
[27]*Science Based Targets initiative (SBTi), Buildings Sector Science-Based Target-Setting Guidance: Draft for Pilot Testing, Version 0.2.1, (December 2023).*
[28]*CDP Worldwide, Position Paper on Carbon Credits, (November 2023).*
[29]*European Network of Construction Companies for Research and Development (ENCORD), ENCORD Construction CO2 e Measurement Protocol. A Guide to reporting against the Green House Gas Protocol for construction companies, (May 2012).*

8 Sectorial Approach

Scope 3 & Supply Chain

Consolidation & Boundary Setting

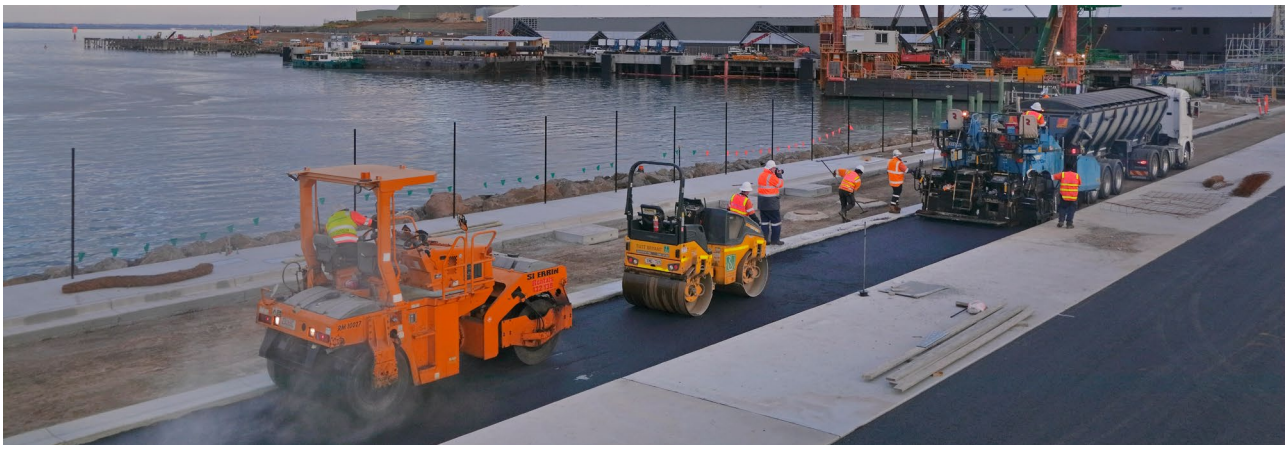
Whilst constructors vary in their business operations and may differ in their legal and organisational structures, many common themes emerge when tackling emissions reporting, particularly within supply chains. Additionally, given the diverse range of businesses within the construction sector it is important that the methodology for defining and reporting emissions can clearly delineate responsibility for CO_2e emissions within the supply chain.

Organisational structures for reporting entities that can impact on reporting pathways for supply chain may include when the entity is a wholly owned operation, or a joint venture or wholly or partly owned subsidiary. The emissions calculation and reporting approach presented in this guideline is predicated on the adoption of operational control consolidation being applied across all entity types as the primary approach. However, where this is impractical or in direct contradiction of adopted guidelines, reporting with explanatory statements is desirable.

Emissions from subcontractors and suppliers (Scope 3) arising on construction projects can be measured at the project level. This approach will allow a complete picture to emerge of the impacts of the project and appropriate reporting for client-side preferences to be fulfilled. Measuring these emissions also helps to level out any inconsistencies between companies that subcontract and those that self perform work.

The ACA recommends Contractors review the ACA Subcontractors and Suppliers Reporting Guide for details on how to set up contracts and encourage supply chain partners to report emissions in a consistent manner. Adopting a universal approach will enable head contractors to support a clear industry-wide approach to our emissions reporting. The guideline provides:

- Key areas of targeted improvements
- Explanatory notes on how to track, calculate and report on their own company emissions in the context
- Example contract clauses and end-of-month report formats



9 Key Takeaways

The ACA views these guidelines as a contribution to a growing knowledge pool on navigating the complexities of emissions accounting, boundary setting, Scope 3 management and promoting an industry-wide culture shift in the emissions reporting landscape.

The key takeaways include:

1. **Contractors must act with urgency to resolve emissions reporting methods** and their approach to Scope 3 measurement and reporting to meet the timelines of federal government reporting legislation and global market demands around emissions transparency.

2. **Alignment between contractors, subcontractors and suppliers** on simplifying reporting across the construction value chain will provide a long-term benefit to the industry and is worth investing in now to get to the right outcomes around emissions management. This includes uniformity of data requests up and down the value chain and consistent reporting of organisational emissions to clients, which will help reduce confusion and resistance to taking urgent action around emissions reductions.

3. **A strong and consistent approach to gathering and reporting emissions gives the industry leverage** within our supply chain to send demand signals to the manufacturers of products for reduced emissions goods and services. Only through requesting emissions data that meets a consistent set of criteria can we hope to send a coherent message around the importance of decarbonising the construction materials sector. Given the emissions of our supply chain represent anywhere from 70-90%[30] of a head contractor's Scope 3 emissions, it is of paramount importance that we strive for consistency in the data our supply chain provides.

4. **By being bold and adopting the right tools for now and developing those we need for the future we will future-proof our industry** since no 'one-method' of emissions accounting for projects has yet arisen as best suited for our industry, it is still incumbent on our sector to act on our emissions profile and move forward with the urgency the challenge requires.

Until now, the construction industry has relied on emissions management and reporting forbearance from stakeholders to carry us through the early era of emissions transparency. This is quickly coming to an end and our social license may soon be put to the test, with infrastructure considered one of the key contributors of planetary impacts.

The ACA endorses the expansion of consistent and practical emissions reporting frameworks and is motivated to work with contractors, subcontractors, suppliers, regulators, governments and private sector clients to improve the Australian infrastructure industrys' emissions reporting culture. By working together and moving with urgency and purpose we will improve the lives of future generations.

[30] *CDP Technical Note: Relevance of Scope 3 Categories by Sector, (January 2023)*

Glossary

ACA	The Australian Constructors Association Limited is a national member affiliate organisation representing Australia's leading construction, infrastructure and services companies.
Australian Sustainability Reporting Standards	A service standard to manage climate-related financial disclosure requirements for entities that the Australian Government considers in-scope.
Basis of Preparation	The framework used to prepare financial statements, disclosing the specific accounting policies used and judgements made when applying such policies.
Company	Refers to an entity as defined under the Australian Federal governments Corporations Act 2001.
Consolidation	Combination of GHG emissions data from independent operations that are part of one company or a group of companies.
Contractor	Means any Company engaged to provide goods or services to an infrastructure proponent in connection with a suitable Contract.
Decarbonising	To reduce the levels of carbon emissions (such as carbon dioxide) caused by or involved in (something, such as a facility, process, or organisation).
Embodied carbon footprint	A measure of the total amount of carbon dioxide (CO_2e) emitted throughout product production, transportation and usage of a product.
Emissions	The release of greenhouse gases into the atmosphere.
Emissions Boundary	The definition of the activities that are included in an emissions assessment and which are not included.
Emissions Factors	A factor that converts activity data into GHG emissions data (e.g., kg CO_2e emitted per litre of fuel consumed, kg CO_2e emitted per kilometre traveled, etc.).
Environmental Product Declaration (EPD)	Independently verified document that provides transparent and comparable data, as well as any other relevant information associated with the life-cycle environmental impacts of a product.
GHG emissions	GHGs are the six gases covered by the UNFCCC: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF_6).
Global Warming Potential (GWP)	A factor describing the radiative forcing impact (degree of harm to the atmosphere) of one unit of a given GHG relative to one unit of CO_2.
Net Zero	A balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere.
NGER	The National Greenhouse and Energy Reporting Act 2007 is a national framework for reporting company information on greenhouse gas emissions, energy production and energy consumption.
Screening assessment	The process of identifying relevancy and potential impacts
Scope 1 emissions	Represent direct emissions from sources owned or controlled by a company, such as fuel combustion in vehicles, process emissions from manufacturing and refrigerants and gases.
Scope 2 emissions	Emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company.
Scope 3 emissions	All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.
Subcontractor	Means any person or entity engaged by the Contractor to supply goods or services to the Contractor in connection with the Subcontract.
Supplier	An entity that provides or sells products to another entity (i.e., a customer).

References

[1]Australian Accounting Standards Board, Australian Sustainability Reporting Standards – Disclosure of Climate-related Financial Information, (October 2023).

[2]The Parliament of the Commonwealth of Australia, Treasury Laws Amendment (Financial Market Infrastructure and Other Measures) Bill 2024, (2024)

[3]Attorney-General's Department of the Treasury, Corporations Act 2001, (July 2024)

[4]Department of Climate Change, Energy, the Environment and Water, National Greenhouse and Energy Reporting Act 2007, (March 2024)

[5]World Resources Institute, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, World Business Council for Sustainable Development, (2004)

[6]NSW Government, Decarbonising Infrastructure Delivery Policy: Reducing Upfront Carbon in Infrastructure, (April 2024).

[7]Global Reporting Initiative, GRI Sustainability Reporting Standards (GRI Standards), (February 2024).

[8]Australian Auditing and Assurance Standards Board, Australian Standard on Sustainability Assurance ASSA 5010 Timeline for Audits and Reviews of Information in Sustainability Reports under the Corporations Act 2001, Commonwealth of Australia, (2025).

[9]Australian Accounting Standards Board, AASB S1 General Requirements for Disclosure of Sustainability-related Financial Information [voluntary], Commonwealth of Australia, (2024).

[10]Australian Accounting Standards Board, AASB S2 Climate-related Disclosures, Commonwealth of Australia, (2024).

[11]SLR Consulting Limited, Australian Sustainability Reporting Standards (ASRS) – Assurance Readiness: how to ensure your disclosures are ready for assurance and verification, (November 2023).

[12]Australian Securities and Investment Commission (ASIC), ASIC's recent greenwashing interventions, Report 763 (May 2023).

[13]Australian Securities and Investment Commission (ASIC), How to avoid greenwashing when offering or promoting sustainability-related products: Information Sheet 271, (June 2022).

[14]World Resources Institute & World Business Council for Sustainable Development, Corporate Value Chain (Scope 3) Accounting and Reporting Standard: Supplement to the GHG Protocol Corporate Accounting and Reporting Standard, (September 2011).

[15]Clean Energy Regulator, Australian Government, NGER reporting guides (August 2024).

[16]Australian Constructors Association (ACA), National Greenhouse and Energy Reporting Scheme Discussion Paper, (2011).

[17]Building Innovation Hub, Understanding Building Emissions: Learn the role buildings play in decarbonization (2024).

[18]The European Parliament and the Council of the European Union, The Corporate Sustainability Reporting Directive, (December 2022).

[19]International Sustainability Standards Board (ISSB), IFRS S2 Climate-related Disclosures, (June 2023)

[20]World Resources Institute & World Business Council for Sustainable Development, Standards & Guidance | GHG Protocol, (2024).

[21]World Resources Institute & World Business Council for Sustainable Development, Technical Guidance for Calculating Scope 3 Emissions: Supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard, v1.0, pp. 17-19, (September 2011).

[22]CDP Worldwide, CDP Technical Note: Relevance of Scope 3 Categories by Sector, (June 2024).

[23]The British Standards Institution, PAS 2080:2023 Carbon Management in buildings and infrastructure, BSI, (2023).

[24]NSW Government, Embodied Carbon Measurement for Infrastructure Technical Guidance, (April 2024).

[25]European Standards, DIN EN 15978 Sustainability of construction works - Assessment of environmental performance of buildings – Calculation method, (October 2012).

[26]Clean Energy Regulator, Australian Government, Assess your obligations, (August 2024).

[27]Science Based Targets initiative (SBTi), Buildings Sector Science-Based Target-Setting Guidance: Draft for Pilot Testing, Version 0.2.1, (December 2023).

[28]CDP Worldwide, Position Paper on Carbon Credits, (November 2023).

[29]European Network of Construction Companies for Research and Development (ENCORD), ENCORD Construction CO2 e Measurement Protocol. A Guide to reporting against the Green House Gas Protocol for construction companies, (May 2012).

[30]CDP Technical Note: Relevance of Scope 3 Categories by Sector, (January 2023).

[31]Science Based Targets initiative (SBTi), SBTi Corporate Near-Term Criteria, Version 5.2, (March 2024).

Appendix A – Australian GHG Reporting Guidance Flow Chart

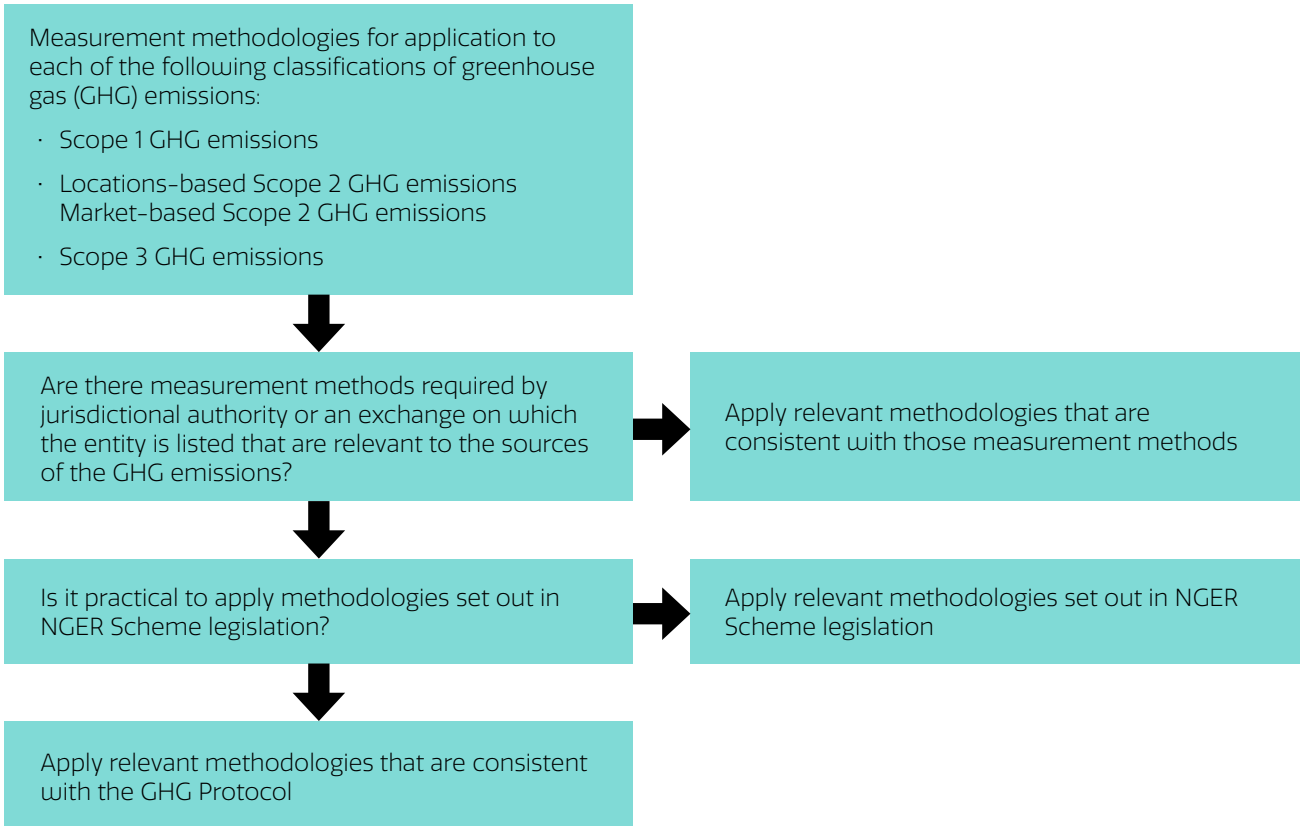


Figure 35 - AASB Sustainability Reporting Exposure Draft, Australian Federal Government, Australian Accounting Standards Board, ED SR1 October 2023, Page 74, Appendix C - Australian application guidance (Updated with AASB Alerts Issue No: 232, Page 2, 28 June 2024)

The flowchart in the above figure represents guidance set down by both the Greenhouse Gas Protocol (GHG Protocol): A Corporate Accounting and Reporting Standard5 and Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011).[14]

[5]*World Business Council for Sustainable Development, World Resources Institute, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, World Business Council for Sustainable Development, (2004).*
[14]*World Resources Institute & World Business Council for Sustainable Development, Corporate Value Chain (Scope 3) Accounting and Reporting Standard: Supplement to the GHG Protocol Corporate Accounting and Reporting Standard, (September 2011).*

Appendix B – Operational Control Scorecard Instructions

How to use the scorecard

1. Define the facility boundary by applying the appropriate legislation (Section 9 of the NGER Act 20074 and Division 2.4 of the NGER Regulations 2008, Chapter 1 of the NGER Guidelines).
2. Fill in the corporate, facility and location details.
3. In the appropriate column, list the operational, environmental and OH&S policies that apply to the facility.
4. Assign a score to each policy, **1 – not very important** and **10 – very important** (policy score) for both the introduction and implementation of policies where applicable.
5. For each corporation involved in the activity, give them a score in relation to the policy score as to how much authority they have to introduce and implement the policy (corporate score). E.g. If it is a very important policy, it might have a policy score of 10. Corporation A might have a high degree of authority to introduce, B somewhat and C none. The scores might read: A – 8, B – 2, C – 0. The combined corporate scores should equal the policy score.
6. After the scores for the corporations are entered, the scores are added and the corporation with the highest score should be considered to have operational control of the facility and therefore reporting responsibility for the greenhouse gas emissions and energy consumption.

See 'Example' for an illustration of a hypothetical facility in the construction sector and for a template of the overall control scorecard. Please note this is an example and the weightings and relevant scores are for the purposes of the example only.

[4] *Department of Climate Change, Energy, the Environment and Water, National Greenhouse and Energy Reporting Act 2007. (March 2024)*

Operational Scorecard Use Example

Facility/Activities description: Lead contractor A is carrying out a construction project (facility) for a client C, and in doing so uses their own staff and equipment and engage sub-contractors for specific tasks. The subcontractors purchase their fuel on most occasions. The scorecard (below) refers to activities carried out by all subcontractors at a particular facility as the arrangements between the lead contractor and all subcontractors are fundamentally the same. In most circumstances these subcontractors work for various clients throughout the year.

Table 14 – Facility/Corporations/interested parties

Facility name/description:	**Address:**	**Lat Long:**
Corporation	**Address (head office)**	ABN
Lead contractor (A)		
Subcontractor (B)		
Client (C)		

Table 15 – Operational Control scorecard example

	POLICY	Policy Score	Corporate Score A* Lead	Corporate Score B* Sub	Corporate Score C Client
OPERATIONAL POLICIES	Design and construction plan (introduce)	10	-	-	10
	Design and construction plan (implement)	10	8	8	-
	Provides fuels for equipment*	10	-	-	-
	Maintenance of equipment	5	-	-	-
	Determines work hours (introduce)	5	5	5	-
	Determines work hours (implement)	5	3	3	-
	Ability to influence asset purchase	5	2	2	1
	Branding and colours	3	1	1	1
	Long term or short term (long term should result in lower score for the sub-contractor)	10	8	8	-
	Other				
	TOTAL		27	27	12
ENVIRONMENTAL	Contaminated site audit (introduce)	6	-	-	6
	Noise and dust suppression (introduce)	10	-	-	10
	Noise and dust suppression (implement)	10	8	8	-
	Fuel types used e.g. biodiesel (introduce and implement)	10	8	8	-
	Minimum emissions standards/fuel consumption for equipment	7	1	1	1
	Other				
	TOTAL		17	17	17
OH&S POLICIES	Daily operating hours of equipment (introduce)	10	-	-	10
	Daily operating hours (implement)	10	5	5	-
	Safety requirements on site (introduce)	10	-	-	10
	Safety requirements on site –audit (implement)	10	8	2	-
	Other				
	TOTAL		13	7	20
OPERATIONAL CONTROL TOTAL**			57	39	49
For this activity it would appear Lead contractor A has operational control of this facility and is responsible for reporting the emissions and energy associated with this activity if thresholds are triggered.					

Notes:
*This is based on the corporation who acquits Fuel Tax Credits
** If the scorecard is equal on completion, operating and environmental polices only should be considered as a _count-back '. Refer NGER Act 2007 Section 11 (4).

Table 16 – Facility/Activity description: Corporations/

Facility name/description:	**Address:**	**Lat Long:**
Corporation	**Address (head office)**	ABN
Lead contractor (A)		
Subcontractor (B)		
Client (C)		

Table 17 – Operational Control Scorecard Template

	POLICY	Policy Score	Corporate Score A	Corporate Score B	Corporate Score C
OPERATIONAL POLICIES					
	TOTAL				
ENVIRONMENTAL					
	TOTAL				
OH&S POLICIES					
	TOTAL				
OPERATIONAL CONTROL TOTAL**					
For this facility it would appear XXX has operational control of this facility and is responsible for reporting the emissions and energy associated with this facility if thresholds are triggered.					

Appendix C – Scope 3 Screening Example

The screening assessment and Scope 3 relevance tests outlined in this guideline have been applied by ACA members previously in alignment with the Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011)[5] following both the GHG accounting principles as the foundations for measurement consistency. The overarching approach applied is detailed below.

1. Review the EN15978 Sustainability of Construction Works Standard to determine where in the Construction Lifecycle the organisation should apply their focus (e.g. cradle to gate or gate / grave).
2. Filter the businesses operations against the 15 Scope 3 categories, excluding those that are irrelevant to the organisations' operations, investments or interests. Next, apply an appropriate test to filter sub-categories for applicability to the organisation. This may be done as follows:
    i. **Qualitatively** – assigning triggers to scoping subcategories in or out (e.g. low – relevance / materiality / transition risk / data availability; and/or
    ii. **Quantitatively** – identify proportion of emission category and include /exclude
    iii. **Third party** – assessment of the organisation for all scope 3 boundaries.
3. Categories and sub-categories that remain within boundary, should be scoped for actionable timelines. For example, some sub-categories may require currently immature or unresolved reporting lines, methods of data collection or overall transparency.
4. Assign a method of calculation:
    i. Reporting – **adoption of reporting tool** to gather external scope 3 data, this may require a data sharing agreement or terms in an appropriate contract.
    ii. Adopt an **estimation method** such as spend or environmentally extended input–output analysis (EEIOA)[21] that is commensurate with the scope and risk of the Scope 3 reporting.
5. **Adopt methods of assurance**, such as engaging a third party to conduct a materiality assessment of scope 3, engage external auditors to review methodologies and/or contact respective agencies to check calculation approaches.

ACA members have published similar guidelines or scope 3 protocols. These are publicly available documents[30] and are reported within the Australian emissions reporting landscape and against the GHG protocol and NGERs.

[14] *World Resources Institute & World Business Council for Sustainable Development, Corporate Value Chain (Scope 3) Accounting and Reporting Standard: Supplement to the GHG Protocol Corporate Accounting and Reporting Standard, (September 2011).*
[21] *World Resources Institute & World Business Council for Sustainable Development, Technical Guidance for Calculating Scope 3 Emissions: Supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard, v1.0, pp. 17-19, (September 2011)*

Appendix D – Emission Guideline Review

	International		National	
	GHG Protocol	**ENCORD**	**SBTi**	**NGER**
Scope 1	Companies report GHG emissions from sources they own or control as scope 1. Direct GHG emissions are principally the result of the following types of activities undertaken by the company: · Generation of electricity, heat or steam · Physical or chemical processing · Transportation of materials, products, waste & employees · Fugitive emissions[5].	Direct Emissions (from the burning of fuel, fugitive emissions and chemical processes)[29]. Include all fuel purchased by the organisation for use in plant and machinery in use on, or at, a project[29].	Aligned with GHG Protocol Corporate Standard[31]	Means the release of greenhouse gas into the atmosphere as a direct result of an activity or series of activities (including ancillary activities) that constitutethe facility. **Facility = A facility is an activity or series of activities (including ancillary activities) that generate greenhouse gas emissions, produce energy or consume energy
Scope 2	Companies report the emissions from the generation of purchased electricity that is consumed by the reporting company5.	Indirect Emissions (from the use of Electricity and Steam)[29]. Include all fuel purchased by the organisation for use at premises which support the company's activities. This will include offices, production facilities, warehouses, plant storage / maintenance facilities, and / or sites used for assembly of construction materials[29].	Aligned with GHG Protocol Corporate Standard[31]	Means the release of greenhouse gas into the atmosphere as a direct result of one or more activities that generate electricity, heating, cooling or steam that is consumed by the facility but that do not form part of the facility. **Facility = A facility is an activity or series of activities (including ancillary activities) that generate greenhouse gas emissions, produce energy or consume energy
Scope 3	Scope 3 includes all other indirect emissions that occur in a company's value chain, covering 15 categories both up and downstream[21].	Other Indirect Emissions (sources not controlled by the company e.g. supply chain)[29].	Aligned with GHG Corporate Value Chain (Scope 3 Accounting & Reporting Standard)[27]	N/A

[27] *Science Based Targets initiative (SBTi), Buildings Sector Science-Based Target-Setting Guidance: Draft for Pilot Testing, Version 0.2.1, (December 2023).*
[5] *World Business Council for Sustainable Development, World Resources Institute, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, World Business Council for Sustainable Development, (2004).*
[21] *World Resources Institute & World Business Council for Sustainable Development, Technical Guidance for Calculating Scope 3 Emissions: Supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard, v1.0, pp. 17-19, (September 2011).*
[29] *European Network of Construction Companies for Research & Development, The ENCORD construction CO2e measurement protocol (GHG Protocol), Version 1, (May 2012).*
[31] *Science Based Targets initiative (SBTi), SBTi Corporate Near-Term Criteria, Version 5.2, (March 2024).*

Appendix D – Emission Guideline Review

Table of Construction Emissions Sources & Scope Allocation by Guidance[29]

	GHG Protocol			
	Scope 1	**Scope 2**	**Scope 3**	**Scope 1**
Buildings / depots and other fixed facilities	· Fuel used in all buildings/ facilities owned, leased or rented by the company Process and fugitive emissions	· Electricity used in all buildings/ facilities owned, leased or rented by the company		· Fuel used in all buildings/ facilities owned, leased or rented by the company · Process and fugitive emissions ▪ **Sources 1, 2, 3,**
Projects / Sites	· Fuel purchased for all plant and equipment owned, leased or hired by the company	· Electricity used in site accommodation.	· Fuel purchased for all plant and equipment by others e.g. subcontractors or clients	· Fuel purchased for all plant and equipment owned, leased or hired by the company ▪ **Sources 1, 2**
Travel in cars and vans (Vehicle Fuel)	· Fuel purchased/paid for by the company for the purpose of business travel in vehicles owned, leased or hired by the company or in privately owned vehicles	· Electricity purchased/ paid for by the company to power electric vehicles for the purpose business travel in vehicles owned, leased or hired by the company or in privately owned vehicles	· Fuel and electricity used for the purpose of commuting in vehicles owned leased or hired by the company or in privately owned vehicles	· Fuel purchased/paid for by the company for the purpose of business travel in vehicles owned, leased or hired by the company or in privately owned vehicles ▪ **Source 7**
Business Travel			· Miles travelled for relevant mode of transport	
HGV Vehicles	· Fuel purchased for use in HGVs owned, leased or hired by the Company.		· Fuel purchased by subcontractor / supplier for use in HGVs	· Fuel purchased for use in HGVs owned, leased or hired by the Company ▪ **Source 9**

[29] *European Network of Construction Companies for Research & Development, The ENCORD construction CO_2e measurement protocol (GHG Protocol), Version 1, (May 2012)*

ENCORD		NGERS	
Scope 2	**Scope 3**	**Scope 1**	**Scope 2**
· Electricity used in all buildings/ facilities owned, leased or rented by the company: · **Source 4, 5 & 6**		· Fuel used in all buildings/ facilities owned, leased or rented by the company Process and fugitive emissions	· Electricity used in all buildings/ facilities owned, leased or rented by the company
· Electricity used in site accommodation. · **Sources 4, 5, 6**	· Fuel purchased for all plant and equipment by others e.g. subcontractors or clients · **Source 9**	· Fuel purchased for all plant and equipment owned, leased or hired by the company · Fuel purchased for all plant and equipment by others within the facility e.g. subcontractors	· Electricity used in site accommodation.
· Electricity purchased/ paid for by the company to power electric vehicles for the purpose business travel in vehicles owned, leased or hired by the company or in privately owned vehicles · **Source 7**	· Fuel and electricity used for the purpose of commuting in vehicles owned leased or hired by the company or in privately owned vehicles · **Source 7**		
	· Miles travelled for relevant mode of transport · **Source 8**		
	· Fuel purchased by sub-contractor /supplier for use in HGVs · **Source 9**	· Fuel purchased for use in HGVs owned, leased or hired by the Company · Fuel purchased by sub-contractor	

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