

Australian Taxonomy Transition Methodology

Research Paper



July 2023

RELEASE NOTICE

Ernst & Young, Australia (“EY”) was engaged on the instructions of the Australian Sustainable Finance Institute Limited (“ASFI”) to prepare this research paper outlining design element considerations for integrating a transition category methodology into an Australian taxonomy (“Report”), in accordance with the engagement agreement dated 12 April 2023, including the General Terms and Conditions. This Report must not be relied upon by any party other than ASFI. EY disclaims all responsibility to any other party for any loss or liability that the other party may suffer or incur arising from or relating to or in any way connected with the Report, the provision of the Report to the other party or the reliance upon the Report by the other party. This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, legal or other professional advice. Please refer to your advisors for specific advice.

ACKNOWLEDGEMENT OF COUNTRY

EY and ASFI acknowledge the Traditional Custodians of Country throughout Australia and recognise their continuing connection to land, waters, species and culture. We acknowledge their ongoing status as the First Peoples of Australia and pay our respects to their Ancestors and Elders past, present and emerging.



Executive summary	6
Summary of Key Considerations	7
Activity-level categorisation methodology	8
Entity-level categorisation methodology	9
Australian policy and economic context	10
Approach	11
Key design considerations	12
Purpose and principles	12
Eligible transition sectors and activities	13
General entity-level requirements	14
Technical screening criteria	15
Alignment with international taxonomy development principles	17
Transition categorisation methodology	18
Activity-level categorisation methodology	18
Entity-level categorisation methodology	21
Next steps and future considerations	23
ASFI Taxonomy Project Funders	23
Appendix A Stakeholder consultation feedback	24
Australian Framing Paper feedback	24
TAG workshop summary of feedback	24
Appendix B Methodology options	26
Pathway differentiation approach	26
Risk and opportunity approach	28
Appendix C Case study application of activity- and entity-level categorisation methodologies	31
Activity-level categorisation methodology	31
Entity-level categorisation methodology	34
Endnotes	38

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Australian Sustainable Finance Institute

The Australian Sustainable Finance Institute's (ASFI) mission is to align the Australian financial system with a sustainable, resilient and inclusive Australia.

ASFI's creation followed an unprecedented collaborative effort by 140 representatives from across the Australian finance sector, civil society, academia, financial regulators and Government to create the Australian Sustainable Finance Roadmap.

Released in November 2020, the Roadmap sets out 37 recommendations to realign the Australian financial system by 2030, to support a more resilient, sustainable and prosperous future for all Australians.

ASFI was established in July 2021 to coordinate and drive Roadmap implementation, working collaboratively across the financial sector, government, regulators, civil society and academia. Our members are Australian banks, asset owners, asset managers, insurers and financial services companies who are committed to ASFI's vision and willing to contribute to sustainable and impactful solutions.

ASFI acknowledges and thanks the many financial institutions and partner organisations that assisted with the preparation of this report including through survey responses, interviews, case studies and other input.



The Australian Sustainable Finance Institute (ASFI) Taxonomy Project is a joint industry-government initiative to develop an Australian sustainable finance taxonomy. Building on work done on sustainable finance taxonomies internationally, this project works with experts and stakeholders across the Australian financial system to design and develop an Australian sustainable finance taxonomy that is credible, usable and internationally interoperable, while reflecting the Australian economy and context. It coordinates with the development of taxonomies in other jurisdictions, across the Asia-Pacific region, the European Union (EU), Canada and the United Kingdom (UK).

ASFI has led Phase 1 of the Taxonomy Project, including leading the development of this research paper, with support from EY to conduct research and engage with technical experts and other stakeholders. ASFI and EY would like to thank relevant stakeholders for their input throughout Phase 1, including the Technical Advisory Group for their technical input and the Project Steering Committee (SteerCo) for providing strategic direction and oversight. We are also grateful for the generous insights and learnings provided by other jurisdictions that have developed or are in the process of developing sustainable finance taxonomies.

Phase 1 of the ASFI Taxonomy Project delivered two papers to date, focusing on the scoping of key framework design elements for an Australian sustainable finance taxonomy. The Scoping Paper of International Taxonomies,¹ released in October 2022, analysed key international taxonomies and the implications for taxonomy development in Australia's economic and environmental context. This Australian Framing Paper,² published in March 2023, provided recommendations for the key design elements for an Australian taxonomy. Input from members of the ASFI Technical Advisory Group (TAG) was integral in the development of both reports and for this work.

Stakeholder feedback on the Australian Framing Paper recommendations demonstrated strong support for the inclusion of a transition category in the Australian taxonomy. However, there was limited consensus on the appropriate methodology for how a transition category could be integrated into the taxonomy.

This paper provides key considerations for the development of an appropriate methodology for integrating a transition category into the Australian taxonomy. The considerations are informed by stakeholder consultation; Australia's economic context; insights gained through further analysis of international approaches to categorising transition activities in sustainable finance taxonomies and standards; and the testing of the practical application of the methodologies to real world case studies across different financial sector users.

The key considerations set out in this paper will provide the building blocks for developing the transition category within the Australia taxonomy. The Australian taxonomy development phase commenced on 1 July 2023. This phase will encompass the development of taxonomy screening criteria for priority sectors, and associated technical work on data requirements, minimum social safeguards and 'Do No Significant Harm' (DNSH) framework. The Commonwealth Government is co-funding this work, reflecting shared appetite across government, finance and industry for new frameworks to support sustainable finance markets in Australia.

Summary of Key Considerations

- C1:** Design of the methodology for integrating transition activities into the Australian Taxonomy should be guided by the core principles; credibility, usability, interoperability, prioritisation, and impact.
- C2:** The transition category should be principally designed to encourage the allocation of capital toward decarbonising hard-to-abate and high-emitting sectors. There should not be a transition category for other sectors.
- C3:** The transition categorisation methodology should be designed to encourage the allocation of capital toward activities that:
- Decarbonise sectors with material scope 1 and 2 emissions where economic activity will likely remain stable or grow in a low carbon economy (e.g. steel manufacturing);
 - Accelerate the decarbonisation and phasing out of sectors with material scope 3 emissions that will face decreasing demand in a low-carbon economy (e.g. natural gas); or
 - Have an increasing demand-side opportunity in a low-carbon economy, including sectors that could help facilitate the transition of other sectors (e.g. renewable energy or afforestation)
- C4:** National level determinations should be made to identify economic activities and sectors as green or transition-eligible, while users of the Australian taxonomy should be responsible for assessing the alignment of eligible activities / entities based on considerations 7 to 10.
- C5:** To avoid carbon lock-in, the transition category should only be eligible for existing projects only. New projects must meet the more stringent green category technical screening criteria.
- C6:** All solid fossil fuel³ projects should be excluded for consideration under the Australian taxonomy's transition category.
- C7:** For activities and entities to be categorised as green or transition under the Australian Taxonomy they must meet the following general entity-level requirements:
- Set credible long-term and interim science-based target to 2050 aligned with a 1.5°C pathway under the Paris Agreement
 - Develop and disclose a credible transition plan aligned with leading international standards and disclosure recommendations
 - Regularly update transition plan and report on progress annually⁴
 - Align climate disclosures with Australia's upcoming mandatory climate-related disclosure requirements.
- C8:** The transition technical screening criteria should be aligned with national sectoral pathways that have been adapted from credible international, science-based scenarios, aligned with achieving the Paris Agreement's goal of limiting global warming to 1.5°C.
- C9:** The transition category should be timebound with sunset dates for each sector/ or sub-sector, aligned to the Paris Agreement's 5-yearly interim targets (i.e. 2025, 2030 or 2035).
- C10:** Entities and activities on a trajectory to align with a 1.5°C pathway by the sector's transition sunset date should be considered eligible to be labelled transition-aligned under the Australian taxonomy, so long as there is sufficient ambition and a credible transition plan outlining the strategy to achieve the future emissions intensity performance thresholds.

FIGURE 1 Illustrative example decision tree for categorising activities as green, transition or excluded under the Australian Taxonomy

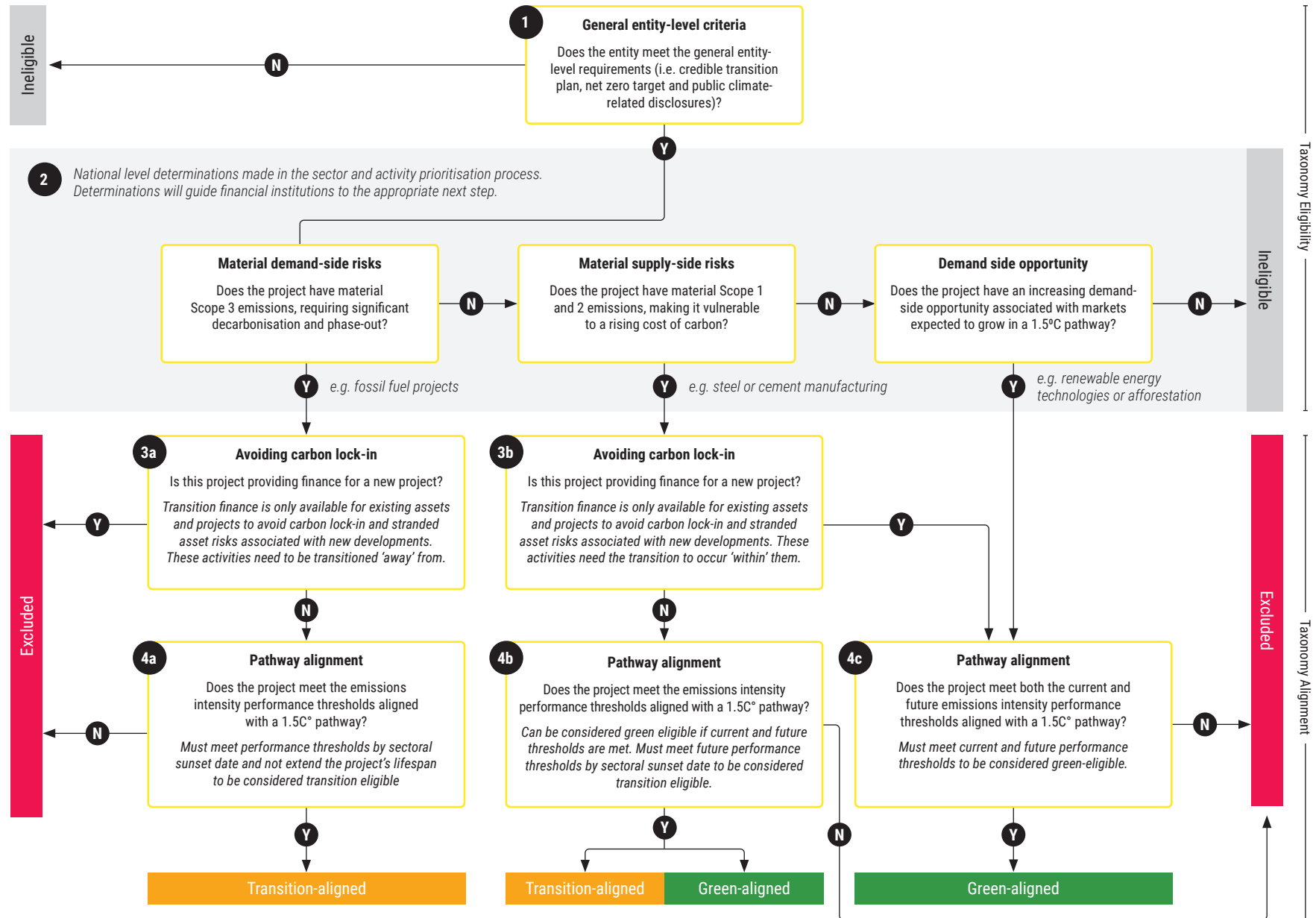
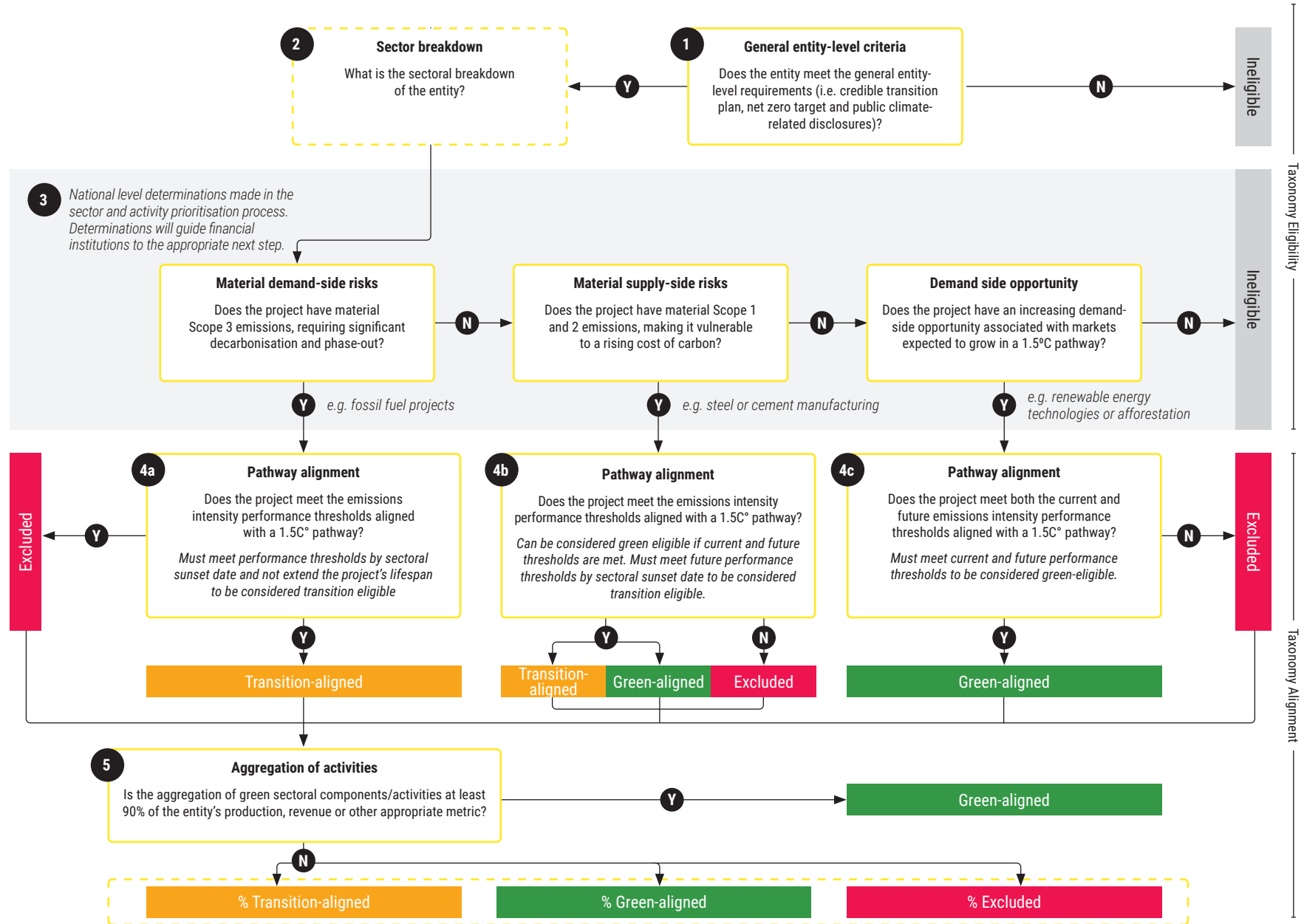


FIGURE 2

Illustrative example decision tree methodology for categorising an entity as green, transition or excluded under the Australian Taxonomy



Australia's reliance on foreign investment and trade means our financial services value chain is at the centre of transition to a sustainable economy and highly exposed to changes in international policy and investor behaviour. However, the global transition towards net zero presents key actionable and investible opportunities for the Australian economy.

With Australia's abundance of raw materials and natural resources, it has the capacity to roll out cost-competitive renewable energy at scale, and leverage this to meet the world's increasing need for clean energy-intensive products, such as green iron and steel.⁵ Australia is well positioned to supply the raw materials required in the rapidly expanding new global renewable energy system, including metal ores such as copper and lithium.⁶

This is a significant shift from Australia's current fossil fuel and emission-intensive exports, which will need to transition to remain competitive in a net-zero economy and support the Australian government with achieving its legislated emission reduction targets.⁷

The Australian Framing Paper, published in March 2023, outlined 15 recommendations for the design of an Australian sustainable finance taxonomy. Two of the recommendations specifically related to the integration of a transition category, including:⁸

Recommendation 12: *Australia should adopt a traffic-light colour coding framework to communicate and distinguish between:*

- 1** *Green activities: aligned to the taxonomy objectives;*
- 2** *Transition activities: on a pathway to alignment with the taxonomy objectives; and,*
- 3** *Excluded activities: unsustainable or do significant harm and/or have no credible pathway to alignment with the taxonomy objectives*

Recommendation 13: *The Australian taxonomy should adopt a clear, transparent methodology for categorising transition activities, endorsed by the Taxonomy Board.*

Transition finance aims to mobilise capital toward initiatives that facilitate the decarbonisation of high-emitting or hard-to-abate sectors. Decarbonisation of high-emitting and hard-to-abate sectors will play a vital role in reducing Australia's national emissions, greening financial portfolios, and reducing systemic risk exposure across the economy.⁹ It is critically important that financial institutions have access to credible transition criteria that progressively steer economic activities toward taxonomy alignment and assists in mitigating the risk of greenwashing.

Internationally, there are several methodologies for categorising transition activities within a taxonomy under development. Although stakeholders supported the inclusion of a transition category in the Australian taxonomy, there was limited consensus on the appropriate methodology for how it could be integrated. Appendix A provides a summary of stakeholder feedback received in response to the Australian Framing Paper relating to the transition category.

Stakeholders emphasised the need to balance directing capital toward the decarbonisation of high-emitting and hard-to-abate sectors with the need to maintain credibility in relation to the labelling of activities as 'taxonomy aligned'.

The development phase of the Australian Taxonomy will encompass the development of taxonomy screening criteria, and associated technical work on data requirements, methodology for incorporating transitional activities, minimum social safeguards and DNSH framework. To inform this work, further analysis and consultation was undertaken to help design and build consensus around the most appropriate methodology for integrating a transition category into the Australian taxonomy.

Approach

Building on the Australian Framing Paper, further analysis and consultation has been undertaken to help build consensus and provide key considerations for a credible methodology for integrating transition activities into the Australian taxonomy.

The scope of this analysis included:

- A comprehensive literature review of methodologies for integrating a transition category into international taxonomies and sustainable finance standards;
- Direct engagements with specialists involved in taxonomy developments internationally; and
- Deep-dive workshops with the ASFI Taxonomy Technical Advisory Group (TAG) for phase 1 of the project, to test two transition methodologies against real-world case studies.

The transition methodologies tested included:

- **Pathway differentiation approach** – categorising an entity or activity against green and transition performance thresholds. Technical screening criteria are supplemented by additional principles-based criteria. Transition performance thresholds gradually move toward alignment with green criteria to encourage ongoing improvements over time. This approach has been adapted from the Singapore taxonomy.¹⁰
- **Transition risk and opportunity approach** – categorising activities as green or transition eligible based on their relevant demand- and supply-side transition risks and opportunities in a net-zero economy. Technical screening criteria are aligned with a 1.5°C pathway, and an entity or activity are labelled as green or transition depending on its performance against the threshold overtime. This approach has been adopted from the Canadian Taxonomy Roadmap Report ('Canadian taxonomy').¹¹

These methodologies are adapted from two of the more advanced transition methodologies under development internationally. These methodologies were also the two preferred approaches proposed in the Australian Framing Paper following stakeholder consultation. A summary of feedback from the TAG workshops is provided in Appendix A. Further detail on the pathway differentiation and transition risk and opportunity approaches are outlined in Appendix B.

The Australian Framing Paper recommended that development of criteria for climate change mitigation objectives be prioritised, with a view to incorporating other environmental and social criteria over time in accordance with the design principles. As such, this report provides design element considerations for integrating transition activities relating to achieving climate change mitigation objectives. Technical input was sought from the TAG to help guide development of the design element considerations. ASFI and the SteerCo provided strategic direction and oversight on the development of the design element considerations and this research paper. Minimum social safeguards and do-no-significant harm criteria will be integrated into the taxonomy as a separate assessment. These additional criteria and their application will be developed in Phase 2 of the Taxonomy Project.

Detailed analysis and consultation with the TAG and specialists involved in international taxonomy development highlighted that the pathway differentiation and transition risk and opportunity approaches shared many fundamental similarities.

Both are underpinned by the following key elements:

- General entity-level criteria to ensure the company seeking finance is fundamentally aligned with the taxonomy's objectives at a company-level.
- Quantitative, science-based performance thresholds for activity-level criteria
- Supplementary qualitative, principles-based criteria to mitigate the risks of carbon lock-in
- Primarily designed for assessing taxonomy alignment of activity-level financing.

To facilitate interoperability and credibility, the Australian taxonomy's transition methodology could adopt these elements, as appropriate. However, there is an opportunity for Australia to lead international dialogue on the approach for incorporating entity-level assessments into taxonomy design.

This section outlines the design element considerations for effectively integrating a transition categorisation framework into the Australian taxonomy, including:

- Purpose and principles
- Eligible transition projects
- General entity-level requirements, including credible transition plans
- Establishing decarbonisation pathways

The design element considerations have been guided by input from the TAG, insights from international taxonomy development initiatives and the core principles guiding development of the Australian Taxonomy. These considerations provide the building blocks for the activity- and entity-level transition categorisation frameworks outlined in the following section of this report. Recognising that national and international sustainable finance frameworks are continuing to evolve, particularly in relation to transition finance, the considerations have been designed with inherent optionality.

Purpose and principles

The Australian Framing Paper recommended the core guiding principles for the development of the Australian Taxonomy be credibility, usability, interoperability, prioritisation and impact, and that the following factors should be considered when prioritising sectors for development under the Australian taxonomy:

- Contribution to sustainability objectives
- Contribution to the national economy by share of gross domestic product
- Potential economic growth and global competitiveness opportunities

Decarbonisation of high-emitting and hard-to-abate sectors will play a vital role in reducing Australia's national emissions, greening financial portfolios, and reducing systemic climate-related risk exposure across the economy. Large industry players within these sectors will have the greatest capacity to contribute towards the significant emission reductions we need to achieve national and global emission reduction targets.

Electricity supply, mining (including coal mining, oil and gas extraction and other mining), agriculture and manufacturing are Australia's four largest emitters (Scope 1 and 2).¹² In addition to driving domestic emissions, the mining sector also contributes significant downstream (Scope 3) emissions through the burning of fossil fuels nationally and in the countries that import them.¹³ It is therefore critically important that transition finance mobilises capital toward initiatives that facilitate decarbonisation of these sectors. In alignment with the Australian Framing Paper recommendations, the design of the transition category would be best served by principally targeting high-emitting, hard-to-abate sectors. These sectors need access to transition finance to maintain their global competitiveness in a low carbon economy. Considerations should also be given to how the decarbonisation of certain high-emitting sectors will facilitate the decarbonisation of other sectors. For example, decarbonising Australia's energy supply will facilitate other sectors whose emissions primarily stem from grid supplied electricity.

Other parts of the economy could be better served through specific labelled products utilising green criteria. For example, most sustainability improvements for small-medium-enterprises (SMEs) and residential or retail customers will likely be driven by green labelled products such as energy efficiency upgrades or installation of solar panels, which can be delivered solely through green criteria. Therefore, the development of a transition category would be best targeted at hard-to-abate and high-emitting sectors. Similarly, while its scope may be broadened in future, the Canadian Taxonomy proposes to initially focus the development of criteria for activities with the greatest transition risks and opportunities.¹⁴

C1: Design of the methodology for integrating transition activities into the Australian Taxonomy should be guided by the core principles; credibility, usability, interoperability, prioritisation, and impact.

C2: The transition category should be principally designed to encourage the allocation of capital toward decarbonising hard-to-abate and high-emitting sectors. There should not be a transition category for other sectors.

Eligible transition sectors and activities

Taxonomy eligibility is determined by whether an economic activity or sector falls within the scope of the taxonomy and substantially contributes to its objectives. In the development phase of the Australian Taxonomy, sectors and activities will be prioritised for inclusion into the Australian Taxonomy. As outlined in the Australian Framing Paper, sector prioritisation should consider the following:

- Contribution to sustainability objectives
- Contribution to the national economy by share of gross domestic product; and
- Potential economic growth and global competitiveness opportunities

This would include consideration of Australian economic sectors and activities with material demand- and supply-side risks, as well as demand-side opportunities associated with the transition to a net-zero economy.

Transition broadly refers to two types of processes:

- Transition within: Decarbonising high-emitting sectors and activities over time; and
- Transition away: Phasing out high-emitting activities where decarbonisation may be unviable or low- or zero-carbon alternatives are readily available.¹⁵

The transition methodology will need to be designed in such a way that encourages the allocation of capital toward these processes. The transition methodology should also be designed to direct capital toward sectors or activities that have high-demand side opportunities in a net-zero economy or enabling sectors with the ability to facilitate other sectors to transition at scale.

Emission intensive sectors that are expected to remain stable or grow in the transition to net-zero due to a lack of viable alternatives (e.g. steel, aluminium, and industrial manufacturing) face material supply-side risks due to the rising cost of carbon. These sectors will need to 'transition within' and decarbonise to maintain their global competitiveness in a low-carbon economy. By comparison, sectors with material scope 3 emissions (e.g. coal, oil and natural gas) face significant demand-side transition risks due to the availability of low- or zero-carbon alternatives. The Australian economy must 'transition away' and phase out these activities to help achieve global and national emission reduction targets.

During consultation, some TAG members suggested the Australian taxonomy include national level determinations to classify certain activities as either green- or transition-eligible to promote investment in the emerging opportunities. This would align with the K-Taxonomy, which divides taxonomy-eligible economic activities into 'green' or 'transition' categories based on their contribution to the taxonomy objectives and necessity for a transition to net zero.¹⁶

National level determinations could be part of the process for prioritising eligible sectors and activities to include within the scope of the Australian taxonomy. A decision could be made as to whether eligible sectors or activities can be considered 'green-eligible' or 'transition-eligible' depending on their relevant transition risks and opportunities. For example, 'green-eligible' could be limited to sustainable activities or those expected to remain stable or grow in a net zero economy and must 'transition-within', whereas activities that must be phased out and 'transition away' (e.g. fossil fuel projects) should only be considered 'transition-eligible' (i.e. no possibility of being labelled green).

Establishing national level determinations will mitigate the risk of subjectivity and facilitate consistency between the assessments made by different financial institutions.

National determinations should be made with consideration for the Australian taxonomy's core guiding principles of credibility, usability, interoperability, prioritisation, and impact. The determinations should be transparent, and align with credible international standards where possible. For example, 'material demand-side risk' could consider whether a sector or activity has material scope 3 emissions. The Science-based Targets Initiative (SBTi) considers a company's scope 3 emissions to be material and thus requiring a science-based target if these emissions account for 40% of total scope 1, 2 and 3 emissions.¹⁷

Transition finance should not be allocated to activities that create carbon lock-in (i.e. delay or prevent the transition to low-carbon alternatives), this idea was strongly supported in TAG consultation sessions. The transition category is only eligible for activities that facilitate the decarbonisation of existing projects under the Singapore and Canadian taxonomies, whereas new projects are expected to meet the green category performance thresholds.¹⁸ This approach mitigates the risk of carbon lock-in and ensures new projects with likely longer lifetimes meet the highest sustainability standards. The Australian taxonomy should adopt a similar approach to mitigate the risk of carbon lock-in, maintain credibility and facilitate interoperability with international taxonomies.

Certain activities that need to be phased out immediately due to their misalignment with a 1.5°C and well-below 2°C pathway should be excluded from the Australian taxonomy (e.g. solid fossil fuel projects or exploration and development of new oil fields). This approach has been adopted by taxonomies internationally, including Canada, Singapore, and EU.¹⁹

C3: The transition categorisation methodology should be designed to encourage the allocation of capital toward activities that:

- Decarbonise sectors with material scope 1 and 2 emissions where economic activity will likely remain stable or grow in a low carbon economy (e.g. steel manufacturing);
- Accelerate the decarbonisation and phasing out of sectors with material scope 3 emissions that will face decreasing demand in a low-carbon economy (e.g. natural gas); or
- Have an increasing demand-side opportunity in a low-carbon economy, including sectors that could help facilitate the transition of other sectors (e.g. renewable energy or afforestation)

C4: National level determinations should be made to identify economic activities and sectors as green or transition-eligible, while users of the Australian taxonomy should be responsible for assessing the alignment of eligible activities / entities based on C7 to C10

C5: To avoid carbon lock-in, the transition category should only be eligible for existing projects, and new projects must meet the more stringent green category technical screening criteria.

C6: All solid fossil fuel²⁰ projects should be excluded for consideration under the Australian taxonomy's transition category.

General entity-level requirements

General entity-level requirements allow for the assessment of whether the company seeking finance is fundamentally aligned with the taxonomy's objectives at a company-level. These requirements aim to enhance the credibility of the taxonomy.

The Canadian taxonomy requires companies to meet general entity-level requirements to ensure project financing is supporting credible transitions, including company-level net zero targets, a credible transition plan and effective climate disclosure aligned with TCFD.²¹ For activities to be considered 'green' or 'transition' entities must meet these requirements in addition to the relevant technical screening criteria. Similarly, the EU Taxonomy suggests that investments should be put in the context of the entity-level transition plan to determine transition eligibility.²²

Feedback from the TAG emphasised the need for clearly defined guidance to determine whether a transition plan is 'credible'. A sustainable finance taxonomy will only form part of the Australia's broader sustainable finance and disclosure framework. National level guidance for developing, evaluating, and reporting credible transition plans should be developed independent from the Australian taxonomy. This could be aligned with international standards and guidance currently under development.

The UK Transition Plan Taskforce (TPT) draft disclosure framework assists entities to disclose credible and consistent transition plans.²³ The draft framework provides recommendations on suitable metrics and targets and is expected to be finalised in 2023. The United Nations (UN) High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities also recently published 10 recommendations to guide companies on setting and attaining net zero targets and creating a transition plan.²⁴ The Climate Bonds Initiative (CBI) Version 4.0 Standard sets out requirements for entity certification which includes having a robust transition plan that is time-bound, backed by performance

targets and trackable.²⁵ The International Capital Market Association's Climate Transition Finance Handbook also provides guidance on the information issuers should disclose in a transition plan, including specific detail of the levers to achieve greenhouse gas emission reductions, such as a detailed capital expenditure plan and relevant technological implications.²⁶

Although transition plan guidance will be independent, the Australian taxonomy's technical screening criteria will help financial institutions evaluate whether an entity's transition plan is sufficiently ambitious to justify eligibility under the taxonomy. At a minimum, a credible transition plan should comprise the following:

- Long-term and interim targets aligned with 1.5°C sectoral pathways;
- Fundamental alignment with the entity's broader strategy, including evidence that capital expenditure will be deployed towards assets, technologies or research and development necessary for the company to meet their interim targets²⁷; and
- Verification via an independent 3rd party assurance process.

The TPT recommends transition plans be updated every 3 years at the latest or when there are significant changes to the plan.²⁸ In comparison, the UN recommends they are reviewed every 5 years.²⁹ The Canadian taxonomy will require companies to update their transition plans every 5 years to remain eligible under the taxonomy.³⁰

The Australian taxonomy's general entity-level requirements should include company-level net zero targets, a credible transition plan and public disclosures aligned with the proposed mandatory national climate-related disclosure requirements. The requirements should be flexible and align with international standards where possible to facilitate interoperability and credibility of the taxonomy.

C7: For activities and entities to be categorised as green or transition under the Australian Taxonomy they must meet the following general entity-level requirements:

- Set credible long-term and interim science-based target to 2050 aligned with a 1.5°C pathway under the Paris Agreement
- Develop and disclose a credible transition plan aligned with leading international standards and disclosure recommendations
- Regularly update transition plan and report on progress annually³¹
- Align climate disclosures with Australia's upcoming mandatory climate-related disclosure requirements.

Technical screening criteria

Recommendation 9 from the Australian Framing Paper highlighted the need for the Australian taxonomy to leverage internationally recognised, credible, and science-based screening criteria. Specific emissions-intensity performance thresholds will be developed in development phase of the taxonomy. They should be aligned with national sectoral pathways consistent with achieving the Paris Agreement's goal of limiting global warming to 1.5°C.

Under the pathway differentiation approach, two sets of thresholds for certain types of eligible activities may need to be established: one for green performance thresholds, and one for transition performance thresholds. For instance, under the Singapore taxonomy green thresholds for energy activities are aligned with existing thresholds in the EU taxonomy, and amber thresholds are based on the current average emissions intensity of the electricity generation gradually declining toward 2035³². In comparison, green criteria for road freight transport is zero tailpipe emissions, and amber criteria is based on an 'outperforming best-on-the market approach'.³³ Feedback from international taxonomy development specialists highlighted the challenges associated with establishing a second amber or transition threshold, including industry lobbying.

By comparison, the transition risk and opportunity approach offers a more streamlined and well-established science-based approach, where one set of thresholds is established for each eligible activity aligned with 1.5°C pathway. Whether an activity is determined to be green, transition or excluded depends on whether it meets the current and/or future thresholds. The Canadian Taxonomy Roadmap also proposed leveraging the Transition Pathway Initiative (TPI) pathways³⁴ to establish its emission intensity performance thresholds.³⁵ Notably, the Singapore Taxonomy also proposes to leverage the TPI pathways to develop amber thresholds for nautical and air transport activities.³⁶

The Australian taxonomy could adopt a similar approach to promote credibility and interoperability, noting that particular criteria and baseline thresholds may need to be adjusted to accommodate Australia's starting point and unique circumstances. Aligning criteria with other international taxonomies, where appropriate, will also promote market confidence and reduce market fragmentation.

The Singapore Taxonomy and CBI Standard also explicitly state transition eligibility will be timebound to avoid delaying the significant levels of decarbonisation required to achieve a 1.5°C pathway.³⁷ There was strong consensus amongst the TAG for a similar approach to be adopted in the Australian taxonomy by allocating sectoral sunset dates for transition eligibility. These sunset dates would be guided by sectoral pathways and could be aligned with the Paris Agreement's 5-yearly interim targets (i.e. 2025, 2030 or 2035).

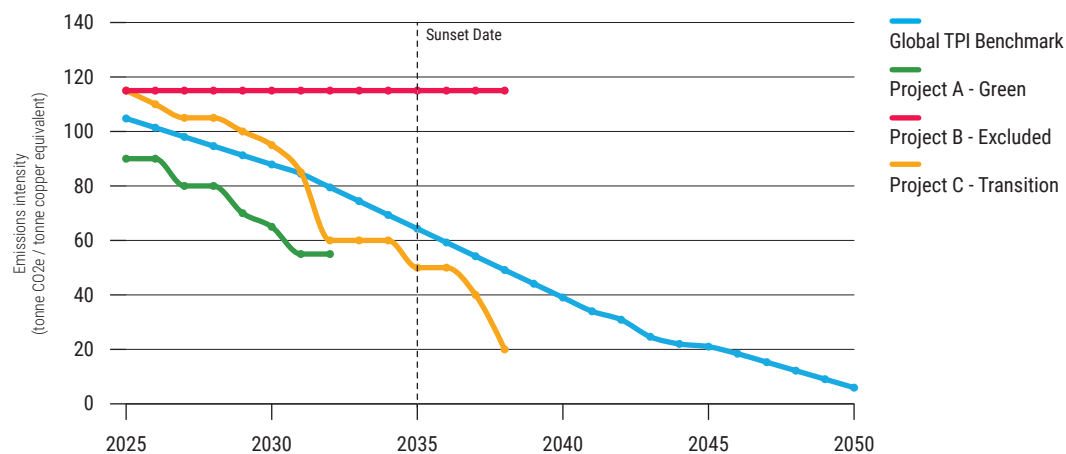
Activities seeking to align with 'green' technical screening criteria should be expected to meet current and future thresholds. However, consideration needs to be given to whether eligible entities and activities seeking transition alignment need to meet current transition thresholds, or just demonstrate they will meet green thresholds within a certain timeframe (e.g. the sectoral sunset dates or 2050).

Companies will need access to transition finance in order to decarbonise and providing a grace period to meet transition category performance thresholds will provide appropriate incentives. Additionally, there will typically be a delay between the time capital is allocated and activities, such as equipment or facility retrofits, can be implemented. However, categorising activities as 'transition' despite significantly exceeding the performance thresholds for a prolonged period of time may be considered as compromising the credibility of the Taxonomy.

Under the CBI Entity and Sustainability-linked debt (SLD) instrument certification scheme, corporates and SLDs that will align with 1.5°C pathways by 2030 at the latest are eligible for transition certification, so long as they can demonstrate the ambition of their future performance targets and the credibility of their transition plan to deliver on those targets.³⁸ The Australian taxonomy could adopt a similar approach.

Box 1 below provides an illustrative example of three hypothetical diversified mining projects against the TPI's global diversified mining 1.5°C sectoral pathway. The timing requirements for meeting green performance thresholds will require further consideration in Phase 2.

BOX 1

Aligning with transition thresholds over time³⁹

The diagram above provides an illustrative example of three hypothetical diversified mining projects against the TPI's global 1.5° C sectoral pathway. Assuming national determinations classify diversified mining activities (excluding coal) as green- and transition-eligible, and the TPI pathway is representative of the Australian Taxonomy's technical screening criteria for mining activities:

- **Project A** meets the current and future emissions intensity performance threshold, therefore complying with this step of the framework and could be labelled as green.
- **Project B** never meets the performance threshold during its lifespan and does not comply with this step of the framework. Project B would be labelled as excluded.
- **Project C** is expected to meet the performance threshold by 2032, before the 2035 sunset date. Ongoing improvements enable the project to continue meeting the performance threshold for the remainder of its lifetime. In this circumstance, the project would meet the requirements for being labelled as transition, providing the company has a credible transition plan outlining a detailed strategy for how it will achieve the future performance thresholds, and makes continued disclosures describing its ongoing progress toward meeting the future threshold. Once the project meets the performance threshold, it could be labelled green.

C8: The transition technical screening criteria should be aligned with national sectoral pathways that have been adapted from credible international science-based scenarios aligned with achieving the Paris Agreement's goal of limiting global warming to 1.5°C.

C9: The transition category should be timebound with sunset dates for each sector aligned to the Paris Agreement's 5-yearly interim targets (i.e. 2025, 2030 or 2035).

C10: Entities and activities on a trajectory to align with a 1.5°C pathway by the sector's transition sunset date should be considered eligible to be labelled transition-aligned under the Australian taxonomy, so long as there is sufficient ambition and a credible transition plan outlining the strategy to achieve the future emissions intensity performance thresholds.

Alignment with international taxonomy development principles

Our research and stakeholder feedback emphasised the importance for the Australian taxonomy to be interoperable with international sustainable finance principles, standards and taxonomies. Notably, international taxonomy developments, particularly in relation to transition finance which are dynamic and constantly evolving.

In June 2021, the Global Financial Markets Association (GFMA) published global guiding principles for developing climate finance taxonomies.⁴⁰ This provides a useful point of reference for the Australian taxonomy. Table 1 demonstrates the interoperability between the design element considerations presented in this paper with GFMA's guiding principles.

TABLE 1

Mapping the transition methodology design element considerations with GFMA global guiding principles for developing climate finance taxonomies

GFMA Global Guiding Principles	Alignment with transition methodology design element considerations
Climate Finance taxonomies should be broadened beyond use of proceeds structures to capture entity-level activities and all eligible sources of capital.	The Australian Framing Paper recommended the development of activity- and entity-level criteria for general and specific use of proceeds, respectively. ⁴¹ All of the transition methodology design element considerations have been developed with consideration of the need for an Australian taxonomy to capture entity-level financing activities.
Climate Finance taxonomies should be objective in nature, supported by clearly defined metrics and thresholds aligned to the Paris Agreement, and science-based targets.	As per the Australian Framing paper, 'credibility' is one of the guiding principles for the development of an Australian taxonomy. Design element considerations C1, C7, C8, C9 and C10 would support the adoption of clearly defined, science-based thresholds aligned to the Paris Agreement within an Australian taxonomy transition categorisation methodology.
Climate Finance taxonomies should have a consistent set of principles and definitions but provide flexibility for regional and temporal variation to align with differences in transition pathways.	Interoperability is a core guiding principle for the Australian taxonomy's development. The transition methodology design element considerations have been guided by global principles, direct engagement with international taxonomy development specialists, and the approaches taken in other jurisdictions, including Canada, Singapore, the EU, UK and Korea. It is key the taxonomy is fit-for-purpose within the Australian context. As such, design element consideration C7 notes general entity level criteria could be aligned with Australia's upcoming mandatory climate-related disclosure requirements. Recognising that national and international sustainable finance frameworks are continuing to evolve, particularly in relation to transition finance, the considerations have been designed with inherent optionality.
Climate Finance metrics should be defined and applied to sectors using science-based targets, balancing ease of use with transparency and robustness to both assess climate impact and support third-party verification.	Credibility is a core guiding principle for the Australian taxonomy's development. Stakeholder feedback emphasised the importance of having credible, science-based criteria tailored to the Australian context to support market acceptance. As such, design considerations C7, C8, C9 and C10 support the use of science-based, transparent and useable criteria. Further, C7 highlights the importance of verification for credible transition plans via an independent third-party assurance process.
Climate Finance taxonomies should be based on a governance process that is robust, inclusive, and transparent, and has the flexibility for continued evolution.	A robust and transparent governance process has been followed to guide the transition methodology design element considerations. This includes deep dive workshops with the ASFI Taxonomy TAG; direct engagements with specialists involved in taxonomy developments internationally; and consultation with regulators and government. The development phase of the Australian Taxonomy will have a formal, transparent, robust and inclusive governance process.

Building on the design element considerations outlined above, this section illustrates how the transition categorisation methodology for assessing taxonomy alignment of activity-level finance (i.e. specific use of proceeds) and entity-level finance (i.e. general use of proceeds) could work in practice. Case study applications are provided in Appendix C.

The Australian Taxonomy's transition methodology will be finalised in the development phase of the Australian taxonomy. However, the process flows detailed in the decision tree diagrams outlined in this research paper provide a solid foundation for further consultation with industry to create a credible transition methodology.

Activity-level categorisation methodology

Financial institutions wishing to assess a project or activity (i.e. specific use of proceeds) as green or transition under the Australian Taxonomy would follow these steps:

Step 1: General entity criteria

Financial institutions should begin by first assessing whether the company seeking finance meets the taxonomy's general entity-level requirements. As per design element consideration 7, this would include assessing whether the company has:

- Set credible long-term and interim science-based targets to 2050 aligned with a 1.5°C pathway under the Paris Agreement;
- Developed and disclosed a credible transition plan aligned with leading international standards and disclosure recommendations;
- Updates its transition plan regularly in accordance with set guidelines and reports on progress annually; and
- Produces climate disclosures aligned with Australia's upcoming mandatory climate-related disclosure requirements.

Companies unable to meet general entity-level criteria would be ineligible under the Australian taxonomy, as opposed to being categorised as 'excluded'. This means SMEs without a credible transition plan or science-based target would be ineligible, rather than labelled excluded or 'unsustainable'. There may be exceptions for some types of SMEs delivering inherently green services, such as a climate technology start-up or rooftop solar panel installer.

If the company meets the general entity-level requirements, the financial institution would proceed to Step 2.

Step 2: National level determination of eligible sectors and activities

As per design element C4, national level determinations will establish the types of sectors or activities that may be considered green- or transition-eligible under the Australian taxonomy. Financial institutions will need to confirm that the activity is within the scope of the taxonomy and identify whether it is transition- or green-eligible to determine whether they then proceed to Step 3A, 3B or 4C.

Activities determined to have material demand-side risk and must be phased out (i.e. 'transition away') to limit global warming to within a 1.5°C pathway (e.g. oil and natural gas activities) would proceed to 3A. Activities determined to have material supply-side risk, but their demand is likely to remain stable or grow under a 1.5°C pathway (e.g. steel, aluminium, chemical, or other industrial manufacturing) would proceed to 3B (i.e. 'transition within'). Activities with low- or zero-emissions and high demand-side opportunities (e.g. installation of solar panels or reforestation) would proceed directly to 4C because there is no need to consider risks associated with carbon lock-in.

Step 3A and 3B: Avoiding carbon lock-in

The intent of Step 3A and 3B is to mitigate the risk of creating carbon lock-in and path dependency.

Step 3A.

Global reduction in demand for products and services facing material demand-side risks under a 1.5°C pathway (e.g. oil and natural gas) will occur gradually. As such, transition finance for decarbonising or accelerating the phase out of these types of activities are necessary to reduce the cumulative emissions and enable Australia to achieve its interim emission reduction targets. These activities need to be phased out as soon as possible, so new developments, expansions or activities that extend their lifetime should be excluded from accessing transition finance. As a result, existing projects would proceed to Step 4A and new projects would be excluded.

Step 3B.

Emissions intensive activities exposed to material supply-side risks due to the rising cost of carbon (e.g. steel, aluminium, chemical and other industrial manufacturing) will need transition finance to decarbonise and remain competitive in a net-zero economy. Existing projects will require time and significant investment to transition toward alignment with a 1.5°C pathway. To prevent unintentional carbon-lock in or path dependency, new development or projects should be expected to meet more stringent performance thresholds and align with a 1.5°C pathway. This will avoid capital being allocated to projects or assets that will remain exposed to material supply-side risks. As a result, existing projects would proceed to 4B and new projects would proceed to 4C.

The Australian taxonomy should clearly define the difference between 'existing' and 'new' projects to limit the subjectivity created by complex corporate structures and project financing models.

Step 4A, 4B and 4C: Pathway alignment

The final step in the process is assessing the activities pathway alignment.

Step 4A involves assessing the alignment of an existing projects with material scope 3 emissions and demand-side risk against emissions intensity performance thresholds aligned to 1.5°C pathway. To be considered transition eligible, the project must meet the performance thresholds by the sectoral sunset date, and the capital allocated must not extend the project's lifespan. If these criteria are not met, the project would be excluded.

Step 4B involves assessing the alignment of an existing project with material scope 1 and 2 emissions and supply-side risk against emissions intensity performance thresholds aligned to 1.5°C pathway. Projects may be considered green-eligible if the current and future performance thresholds are met. To be considered transition-eligible, the project must meet the performance thresholds by the sectoral sunset date. If this criterion is not met, the project would be excluded.

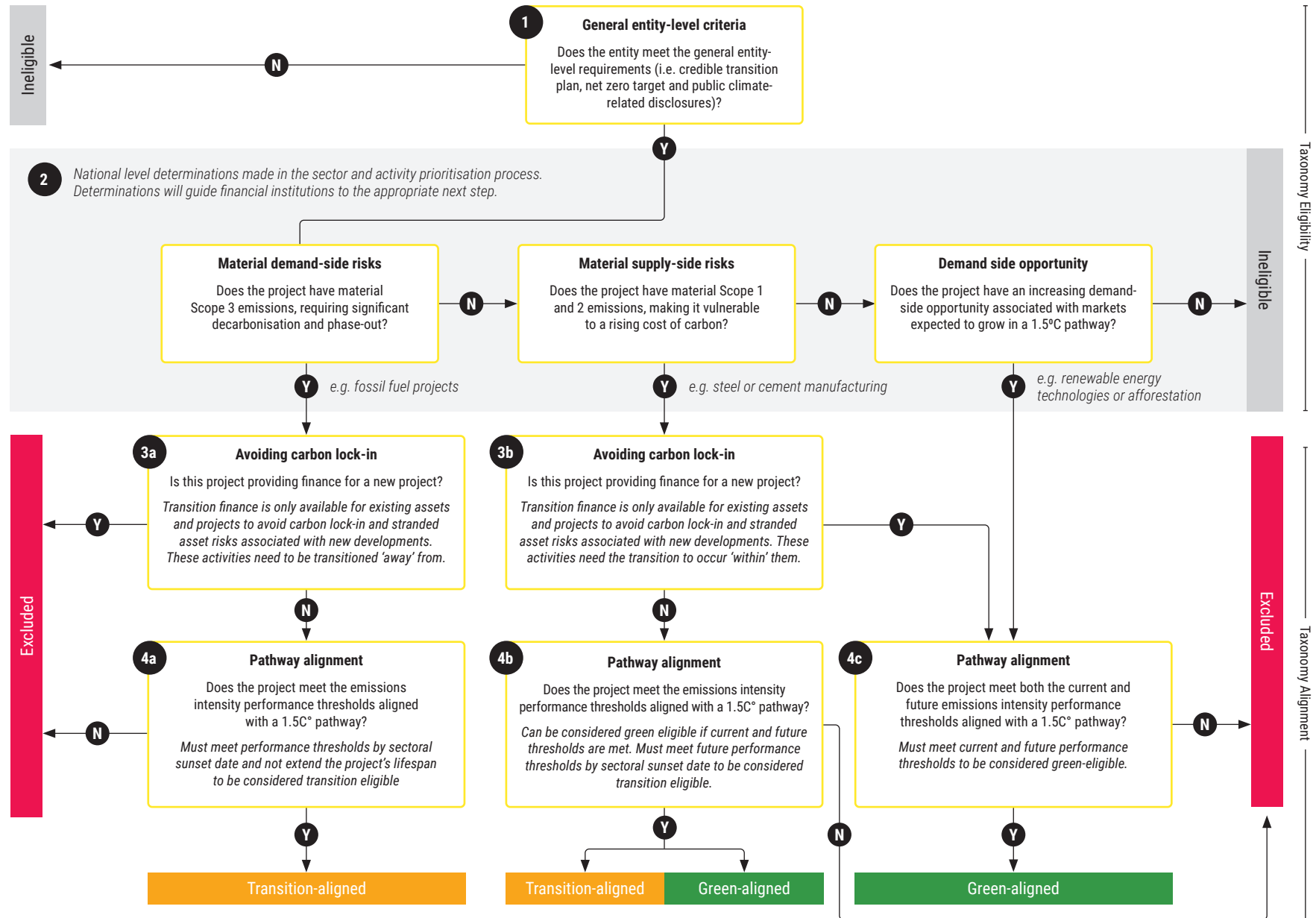
Step 4C involved assessing either:

- Projects with low- or zero-emissions and increasing demand-side opportunity associated with markets expected to grow in a net-zero economy; or
- New projects in sectors with historically material scope 1 and 2 emissions, but are expected to remain stable or grow in a net-zero economy.

In both instances, these projects will be expected to meet the current and future performance thresholds to be considered green-eligible. If this criterion is not met, the project would be excluded. These types of projects will not be considered transition eligible.

FIGURE 3

Illustrative example decision tree for categorising activities as green, transition or excluded under the Australian Taxonomy



Entity-level categorisation methodology

Financial institutions wishing to assess a company or entity (i.e. general use of proceeds) as green or transition under the Australian Taxonomy would follow these steps:

Step 1: General entity criteria

As per the activity-level categorisation methodology, financial institutions would start by determining whether the company seeking finance meets the Australian taxonomy's general entity-level requirements; company-level net zero targets, a credible transition plan and effective climate-related disclosures. The financial institution would proceed to Step 2 if these criteria are met. Otherwise, the company would be deemed ineligible.

Step 2: Sector breakdown

To undertake an entity-level assessment, an activity-level assessment must be completed for each sectoral component of the entity. As such, financial institutions will need to understand the sectoral breakdown of the company it is assessing before proceeding through Step 3 and 4. In the development phase of the taxonomy, a materiality threshold may need to be developed based on production, revenue or emissions to establish a minimum sector significance threshold for inclusion in the Taxonomy eligibility assessment. This could be based off SBTi guidance of materiality thresholds for the portion of emissions that can be excluded from emission reduction targets.

Step 3 - 4: Activity-level assessment for sectoral components

Step 3 and 4 follow the same approach as the activity-level categorisation methodology. In Step 3, the financial institution would first identify the determination for the relevant sectoral component of the entity it is assessing to guide whether they then proceed to Step 4A, 4B or 4C.

In Steps 4A, B and C, the financial institution would assess the sectoral component against the relevant sector or activity emissions intensity performance thresholds to determine whether it is green, transition or excluded.

Unlike the activity-categorisation methodology, there is no need to consider whether an entity is a new or existing company. Carbon lock-in considerations are instead addressed by assessing whether a company's sectoral components meet the performance thresholds by the transition sunset dates. If the entity's sectoral component does not meet the performance thresholds by the transition sunset date, it would be considered ineligible.

Step 5: Aggregating activity-level assessments

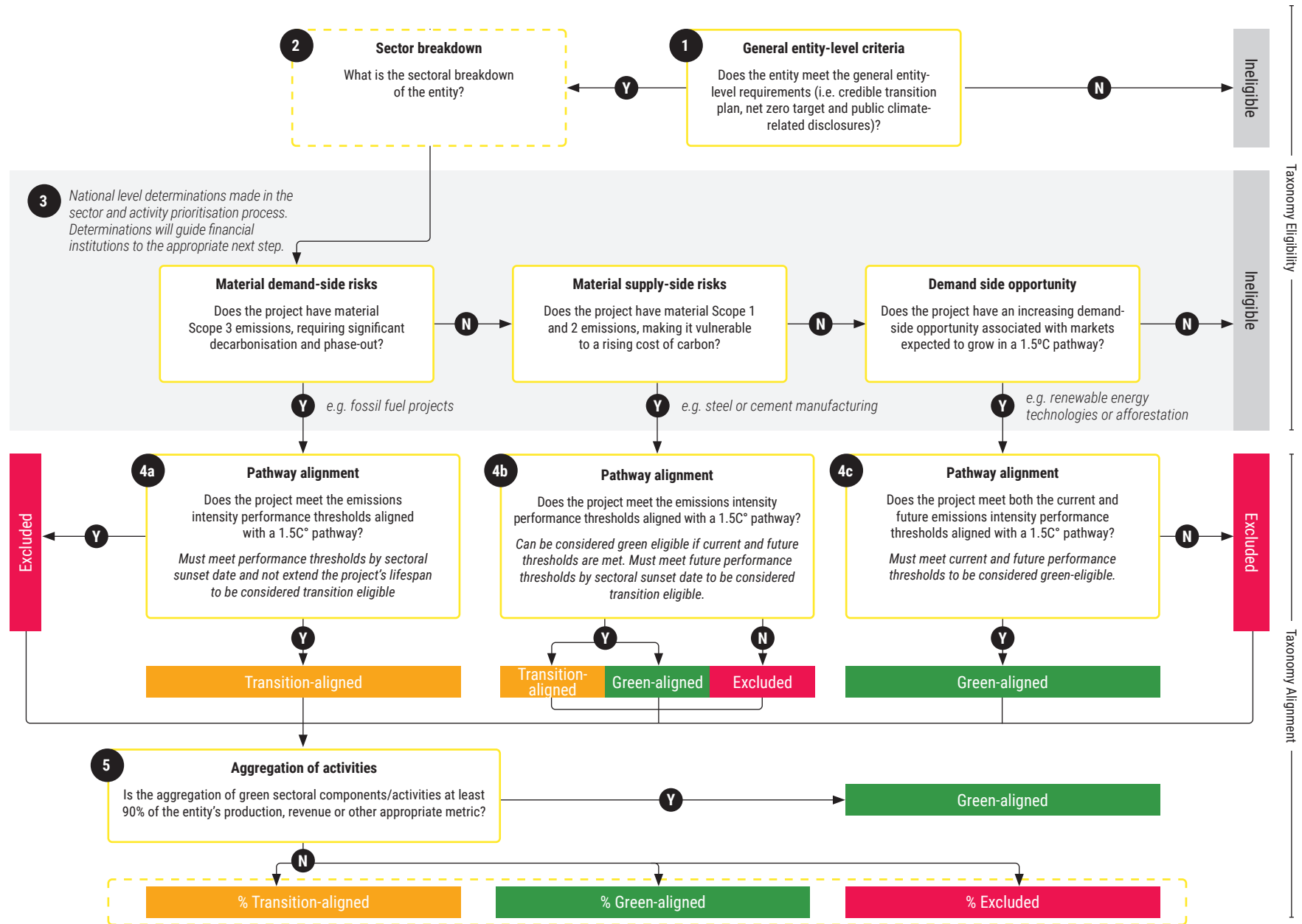
The final step involves aggregating the individual activity-level assessments to determine the entity's overall alignment with the Australian taxonomy. An entity's activities could potentially be aggregated by revenue, production, or another appropriate metric. Guidance on how a company's sectoral components should be aggregated will be developed in Phase 2 of the Taxonomy Project.

Some entities may have activities that are ineligible (i.e. outside the scope of the taxonomy). In these circumstances, financial institutions should also assess the proportion of their portfolio that is ineligible (i.e. not covered by the taxonomy).

If the aggregation of the entity's sectoral components is equal to or greater than 90% green, then the entity can be assessed as 100% green (pure play). This approach aligns with the CBI Standard. Otherwise, the financial institution will be required to attribute the green, transition, excluded and ineligible sectoral components according to the breakdown of the entity. This could be disclosed as part of the transition plan for transparency to the market.

FIGURE 4

Illustrative example decision tree for categorising an entity as green, transition or excluded under the Australian Taxonomy



Next steps and future considerations

Commencing July 2023, Phase 2 of the ASFI Taxonomy Project will encompass the development of taxonomy screening criteria for at least 3 priority sectors, and associated technical work on data requirements, methodology for incorporating transitional activities, minimum social safeguards and DNSH framework.

Scope and timing of the work will be confirmed as more detailed project planning takes place. The design considerations outlined in this report provide the foundation for developing the methodology for integrating a transition category into the Australian taxonomy.

The entity-level categorisation methodology outlined in this paper also provides Australia with opportunity to lead and influence international dialogue around the appropriate methodology for assessing taxonomy alignment of corporate-level financing (i.e. general use of proceeds).

Further work will need to be undertaken in the taxonomy development phase to enable implementation of the design element considerations outlined in this research paper. Development of the following will underpin the credibility, usability, and interoperability of the Australian taxonomy's transition categorisation methodology:

- Sectoral decarbonisation pathways aligned with a 1.5°C pathway and the sunset dates appropriate for the Australian economic context and relevant industry sector and industry sector activities;
- Clear guidance on developing, evaluating, and reporting credible transition plans;
- A transparent, science-based approach aligned to international standards for undertaking national level determinations to classify economic sectors and activities as green- and/or transition-eligible under the Australian taxonomy;
- Mandatory requirements on Scope 3 emissions disclosure;
- Clear definitions to differentiate between new and existing projects in the context of carbon lock-in;
- Appropriate metrics to aggregate green and transition activities for entity-level assessment; and
- Appropriate cut-off for sizing of entities for eligibility under the Transition category.

ASFI Taxonomy Project Funders

The first phase of the ASFI Australian Sustainable Finance Taxonomy Project including the 1) Scoping Paper of International Taxonomies; 2) Recommendation paper for an Australian Taxonomy; 3) this research paper for the methodology to integrate a transition category and 4) setting up the implementation phase has been generously funded by the following ASFI members:



Deloitte.



| HESTA |



Commonwealth Bank



The Commonwealth Government will co-fund Phase 2 of the Taxonomy Project, reflecting shared appetite across government, finance and industry for new frameworks to support sustainable finance markets in Australia.

Appendix A Stakeholder consultation feedback

Australian Framing Paper feedback

The Australian Framing Paper was released for consultation between December 2022 – March 2023. During this period, stakeholders could provide input into the Australian taxonomy design recommendations and respond to an additional question on what would be the most appropriate transition methodology option.

The majority of respondents supported Recommendation 12: *“The Australian taxonomy should adopt a clear, transparent methodology for categorising transition activities, endorsed by the Taxonomy Board”* (Figure 9). Many respondents highlighted the need for the methodology to be clearly defined, transparent and science-based, and advocated for the requirement for issuers seeking transition finance to have an independently verified credible transition plan. Furthermore, there was a strong consensus that the transition category be timebound and dynamic to accommodate for technological advancements.

Despite strong consensus for the inclusion of a transition category, stakeholders were divided on the best approach to integrate the category into the Australian taxonomy (Figure 10). Fifty-one stakeholders responded to the question *“What methodology for categorising transition activities would be the most suitable for use in the Australian taxonomy?”*. The responses were mixed with 31% supporting a transition risk and opportunity approach, 25% supporting a pathway differentiation approach and the remaining respondents either supporting the activity categorisation approach, an alternative approach or were unsure.

TAG workshop summary of feedback

ASFI held two workshops with members of the TAG to capture feedback on transition methodology options through the practical application to real-world case studies across banking, investment and insurance.

TAG members preferred the pathway differentiation approach for being relatively simpler and more usable; having clear, quantitative, and science-based performance thresholds; and for its interoperability with the Association of Southeast Asian Nations (ASEAN) and Singapore taxonomies. However, there were key elements within the transition risk and opportunity approach that were viewed favourably, such as the inclusion of a principles-based assessments to mitigate carbon lock-in risks.

TAG members supported the inclusion of a sunset date for the transition category, advising that sunset dates should be science-based and differ depending on the sectoral pathway for the activity or entity being assessed.

TAG members emphasised the importance of providing clear definitions and guidance around subjective terms. For example, clearly defining what constitutes a ‘credible’ transition plan or ‘material’ supply- or demand-side transition risks and opportunities. On this matter, TAG members strongly supported consideration of capital expenditure allocation within the criteria for evaluating the credibility of an entity’s transition plan.

In relation to the entity-level categorisation methodology options presented, the TAG generally favoured Option A, where reporting on an entity’s alignment with green or transition criteria is broken down, rather than reporting an aggregated average alignment.

When asked whether the transition methodology and requirements should consider the size and type of entity under assessment, TAG members suggested large and more developed companies should generally have earlier transition sunset dates. It was suggested that perhaps a basic and sophisticated methodology could be established to accommodate and lower the burden of transition planning on SMEs.

FIGURE 9

Stakeholder response to Recommendation 12 in the Australian Framing Paper



FIGURE 10

Stakeholder responses to Australian Framing Paper on preferred transition methodology



Appendix B Methodology options

Pathway differentiation approach

The pathway differentiation approach involves categorising an entity or activity based on its alignment to a 1.5°C pathway. This would comprise performance thresholds that demonstrate improvement over time towards alignment to a 1.5°C pathway by a sunset date.

Under this approach, the upper limit of the qualifying thresholds for the transition category would be aligned with a well below 2°C pathway at 2023, while the lower limit would be aligned with a 1.5°C pathway. The range of performance thresholds in the transition category becomes fully aligned with a 1.5°C pathway by a sunset date of 2035 (for example), after which the transition category ceases to exist.

Table 1 demonstrates what the thresholds could look like in practice. Please note these are hypothetical values only. This example assumes the transition methodology sunsets at 2035. The same thresholds will apply whether the funding is for specific use of proceeds (comprising an assessment of the eligibility of the activity against the taxonomy) or for general corporate purposes (comprising an entity level assessment of eligibility against the taxonomy). The next page details in further clarity on how the activity level and entity level assessments will differ in approach.

Using common metrics to measure the environmental impacts of economic activities, such as carbon intensity (gCO₂/kWh) of electricity generation activities will improve the interoperability of the approach chosen. This would be consistent with the approach taken by

other global taxonomies, including the EU and Singapore taxonomies. Thresholds would be reviewed regularly to incorporate changes in technology and science and become more stringent over time.

Activity-level assessment

The underlying methodology for determining whether an activity is eligible for classification under transition follows a decision tree with the following criterion (see Figure 1):

- Performance thresholds: Does the activity meet the current and future performance thresholds of the transition pathway?
- Credibility of transition plan of the entity undertaking the activity: Does the entity undertaking the activity have a credible transition plan to underpin the specific activity being assessed?

Entity-level assessment

The underlying methodology for determining whether an entity is eligible for classification under transition follows a decision tree with the following criterion:

- Company production breakdown: What is the production breakdown of activities at the company level?
- Performance thresholds: Do each of the activities meet the current and future performance thresholds to be classified as green or transition?
- Credibility of transition plan of the entity: Does the entity have a credible transition plan to underpin the activities being assessed?

Timeframe	2022-2025	2025-2030	2030-2035	2035-2040	2040-2050
Green*	<100g	<100g	<100g	<50g	<50g
Transition**	100g - 510g	100g - 300g	100g - 200g	N/A	N/A
Excluded	>510g	>300g	>200g	>50g	>50g

*Example green performance thresholds have been set to align with the EU and proposed Singapore Taxonomy thresholds. Emissions include Scope 1, 2 and 3.
 **Example transition performance thresholds were estimated based on the current emission intensity of Australia's electricity supply, excluding black coal electricity generation, with a hypothetical sunset date of 2035. Emissions include Scope 1, 2 and 3.

- Entity-level classification: How would the entity be classified? Two options have been presented below for discussion.
- **Option A:** Classification based on attribution of performance
 - Is the aggregation of green activities at least 90% of the entity's production? If yes, financing for the entity is considered 100% green (pure play).
 - Is the aggregation of green activities less than 90% of the entity's production? If yes, financing for the entity is attributed to green and transition according to the production breakdown percentages.
- **Option B:** Classification based on average performance (given the percentage of production for each activity)
 - Does the entity level average meet the current and future performance thresholds? This will result in one classification label for the whole entity.

FIGURE 5 Pathway differentiation approach – Decision tree for specific activity

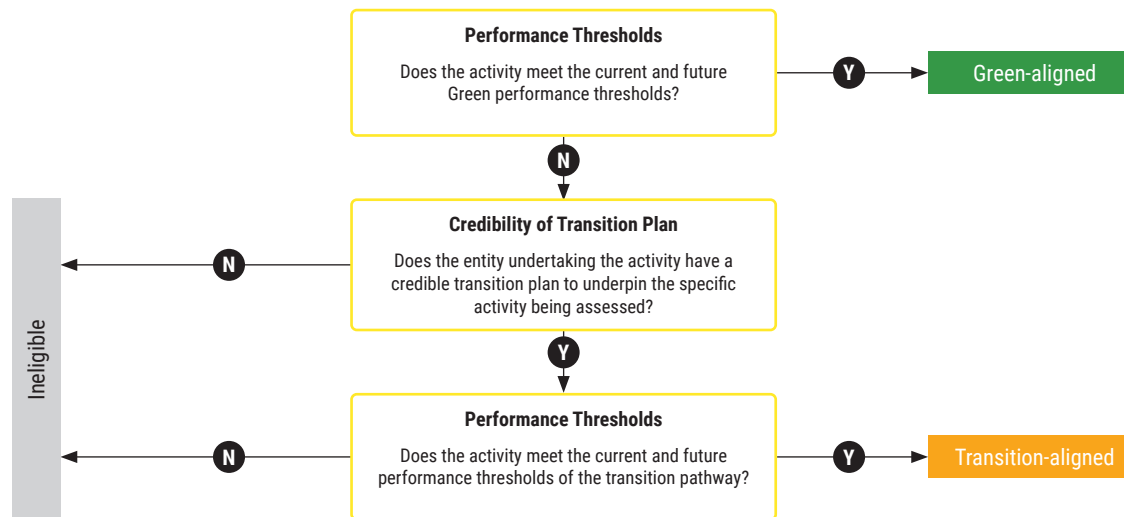
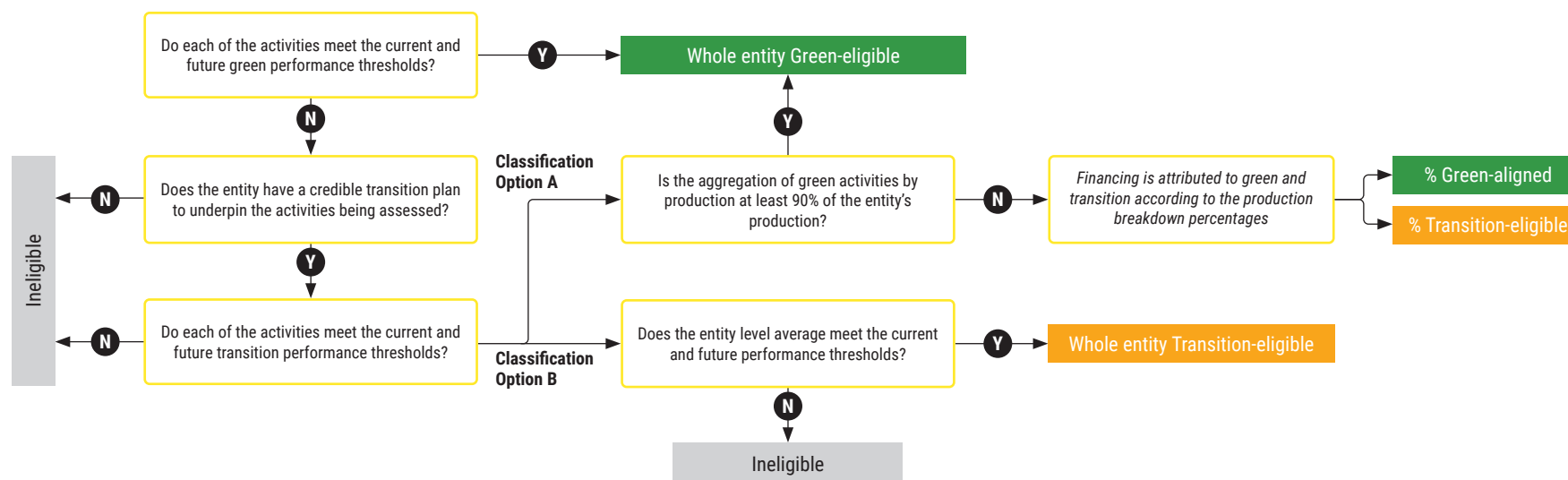


FIGURE 6 Pathway differentiation approach – Decision tree for entity level



Risk and opportunity approach

The transition risk and opportunity approach involves an assessment of relative transition opportunities and risks, which consider demand-side risks, project lifespans and emission reductions in relation to a 1.5°C pathway.⁴⁴

Categorisation of activities and the technical screening criteria used for assessing alignment are anchored in climate science and credible transition pathways. Categorisation considers potential environmental harm (e.g. avoiding carbon lock-in) as well as investment risk (e.g. long-term sustainability and market competitiveness of the activity in a future, net zero economy). The criteria would be reviewed regularly to incorporate changes in technology, science, and policy and become more stringent over time.

Activity-level assessment

The underlying methodology for determining whether an activity is eligible for classification under transition follows a decision tree with the following criterion (see Figure 2):

- Material demand-side risk: Does the activity have material scope 3 downstream emissions,⁴⁵ does it sell into markets where demand is expected to decline in a 1.5°C aligned world?
- Timing of demand-side risk: Does this demand-side risk materialise in the short-term requiring immediate phase out?⁴⁶
- Lifespan of project: Does the activity avoid demand-side carbon lock-in?⁴⁷
- Emissions reductions: Does the activity significantly reduce supply-side risk (scope 1 and 2 emissions) without reliance on offsets? Is the emissions intensity at the sunset date consistent with the 1.5°C pathway?
- Material supply-side risk: Does the activity have material scope 1 and 2 emissions, making it vulnerable to a rising cost of carbon on production or supply costs?
- Path dependency: Does the activity have supply-side risk creating carbon lock-in?
- Demand-side opportunity: Does the activity have increasing demand-side opportunity, is it associated with markets expected to grow in a 1.5°C aligned world?

Table 2 demonstrates what the thresholds for emissions intensity could look like in practice. Please note these are hypothetical values only. This example assumes the transition methodology sunsets in 2035.

Entity-level assessment

The underlying methodology for determining whether an entity is eligible for classification under transition follows a similar decision tree (as above), with the assessment done at an entity level and resulting in one classification label for the whole entity:

- Material demand-side risk: Does the entity have material Scope 3 downstream emissions,⁴⁸ does it sell into markets that are expected to decline in a 1.5°C aligned world?
- Timing of demand-side risk: Does this demand-side risk materialise in the short run requiring immediate phase out?⁴⁹
- Lifespan of project: Does the entity avoid demand-side lock-in?
- Emissions reductions: Does the entity significantly reduce supply-side risk (scope 1 and 2 emissions) without reliance on offsets? Is the emissions intensity at the sunset date consistent with the 1.5°C pathway?
- Material supply-side risk: Does the entity have material scope 1 and 2 emissions, making it vulnerable to a rising cost of carbon on production or supply costs?
- Path dependency: Does the entity have supply-side risk creating carbon lock-in?
- Demand-side opportunity: Does the entity have increasing demand-side opportunity, associated with markets expected to grow in a 1.5°C aligned world?

Alternatively, each activity across the entity can be assessed, with a similar process to Option A (presented under the pathway differentiation approach) then undertaken to aggregate activities for attribution of green and transition classifications. This will make for a more granular and detailed assessment and could represent a hybrid approach.

TABLE 2

Example emissions intensity performance thresholds for electricity supply activities in Australia (gCO₂e/kWh)

Timeframe	2022-2025	2025-2030	2030-2035	2035-2040	2040-2050
Emissions intensity performance threshold (gCO ₂ e/kWh)	100	100	100	50	50

FIGURE 7

Risk and opportunity approach Decision tree for a specific activity

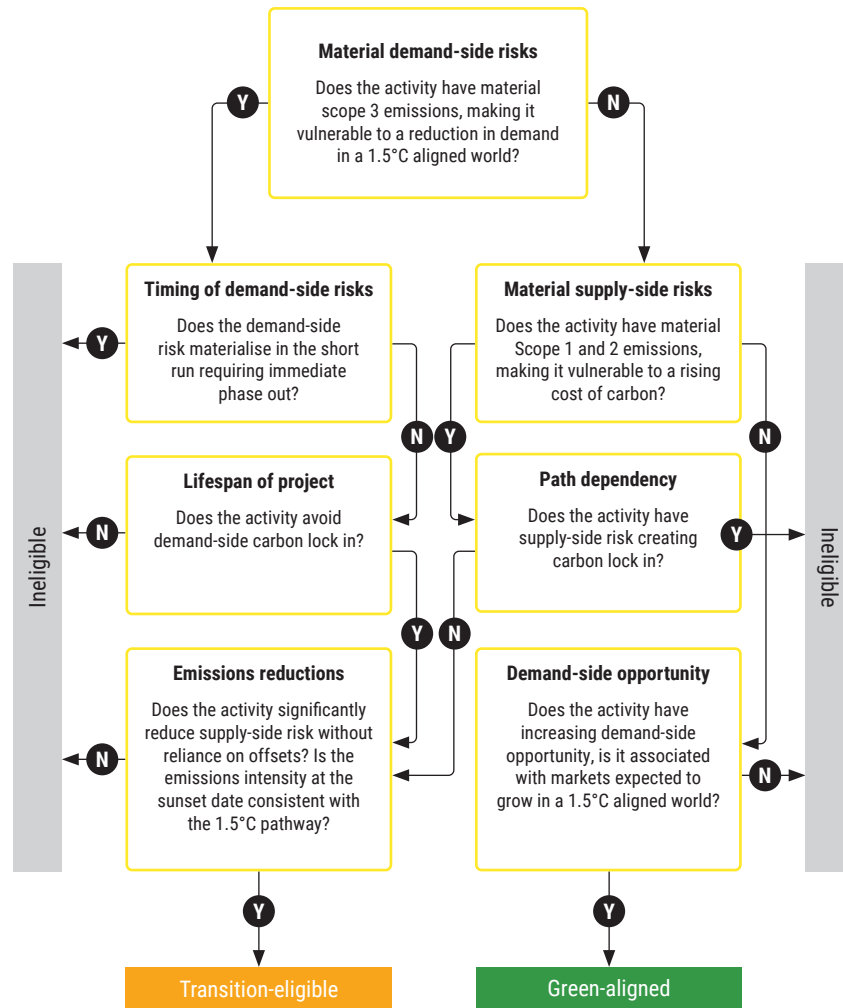
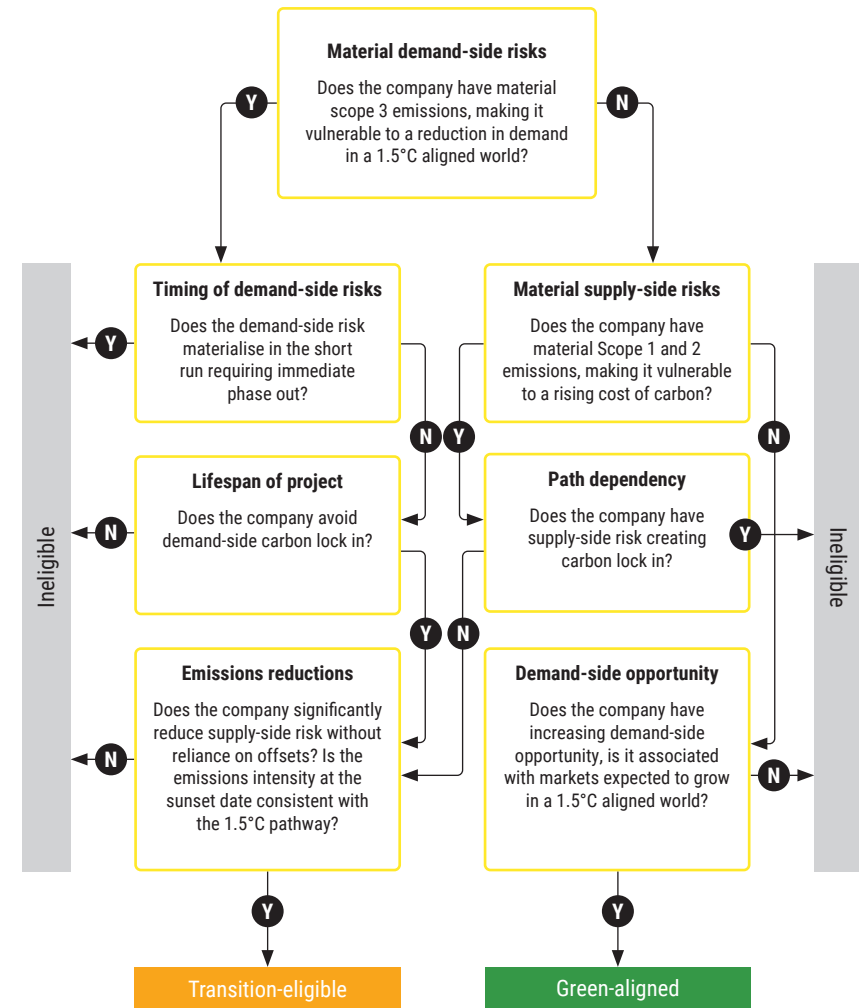


FIGURE 8

Risk and opportunity approach Decision tree for entity level





Appendix C

Case study application of activity- and entity-level categorisation methodologies

Activity-level categorisation methodology

Activity level assessments are relevant for entities engaging in specific financing for individual projects. The following case study explores how the transition categorisation methodology decision tree presented in this research paper could be used by a bank seeking to evaluate the eligibility of an activity specific loan under the taxonomy.

Scenario: Australian Energy Producer (AEP) is one of Australia's largest energy providers. Given the physical and competitiveness effects of climate change and considering the best interests of the company and its shareholders and other stakeholders, G, AEP has made a commitment to reach net zero by 2050. It's the AEP published transition plan does not include a reliance on offsets. AEP produces renewable electricity, primarily from wind turbines and a small biomass electricity generation facility, and sells natural gas sourced from its gas fields. Currently, electricity supply accounts for 35% of AEP's revenue, and gas supply accounts for 65%. However, the gas fields are expected to close by 2032. Technological advancements will enable AEP to progressively reduce the emissions produced by its biomass facility over time.

AEP has approached ABC bank (ABC) for project financing to retrofit an existing gas field and implement business sustainability performance improvements progressively until 2032, when the gas field will close. The project will reduce the gas field's cumulative emissions over its remaining lifetime. ABC has previously provided financing to AEP and have no credit risk concerns; however, ABC is aware of the Australian taxonomy and are interested in determining how this activity will align with the taxonomy.

Table 3 demonstrates what AEP's current and projected performance by activity is. Please note the emissions intensities shown are intended to represent hypothetical values only.

Figure 12 highlights the steps ABC would follow through the illustrative decision tree methodology. Further detail on the rationale for each progression is provided below.

Step 1: General entity criteria

ABC begins by first assessing whether AEP meets the taxonomy's general entity-level requirements; company-level net zero targets, a credible transition plan and public climate-related disclosures. For the purposes of this example, we assume AEP meets the general entity criteria, and ABC would proceed to Step 2.

AEP's sectoral breakdown ^A	Current FY23 Performance	Estimated FY25 Performance	Estimated FY30 Performance	Estimated FY35 Performance
Electricity supply ^B	35 gCO ₂ e/kWh	35 gCO ₂ e/kWh	25 gCO ₂ e/kWh	15 gCO ₂ e/kWh
Gas supply ^C (Current)	400 gCO ₂ e/MJ	400 gCO ₂ e/MJ	400 gCO ₂ e/MJ	Gas fields shut down by 2032
Gas supply (Project implemented)	400 gCO ₂ e/MJ	200 gCO ₂ e/MJ	50 gCO ₂ e/MJ	

A. Sectoral breakdowns are aligned with Australian and New Zealand Standard Industrial Classification (ANZSIC) codes.

B. Electricity supply emission intensities are hypothetical and include Scope 1 emissions. This is aligned with the TPI methodology for establishing benchmark global carbon intensity pathways for the electricity sector. The TPI methodology currently focuses on the emissions intensity of owned electricity generation, excluding power that is purchased by the utility and re-sold to customers.⁵⁰

C. Gas supply emission intensities are hypothetical and include Scope 1, 2 and 3 (category 11 – use of product) emissions. This is aligned with the TPI methodology for establishing benchmark global carbon intensity pathways for the oil and gas sector. The TPI methodology includes Scope 3 category 11 emissions in the benchmark because the vast majority of oil and gas lifecycle emissions stem from the use of these types of companies' sold products.⁵¹

Step 2: National level determination of eligible sectors and activities

ABC then assesses whether the project is within the scope of the Australian taxonomy (i.e. whether it is eligible). The Australian taxonomy would include a list of eligible activities that have criteria available to evaluate taxonomy alignment.

ABC would first check whether the project activities match one or more of the taxonomy's activity descriptions. ABC would then check whether the project is green and/or transition eligible. Green and transition eligibility of specific activities would be documented within the taxonomy guidance. Green and transition eligibility determinations would be made at a national level as activities are included within the scope of the Australian taxonomy. National-level determinations could be based on the relevant transition risks and opportunities for specific economic activities.

In this case study example, we assume the project activities included in the retrofit are eligible. We also assume natural gas projects, which have material demand-side risk and must be phased out (i.e. 'transition away'), are determined to only be transition-eligible (i.e. not eligible for green-labelling). Under these circumstances, ABC would proceed to Step 3A.

Step 3A: Avoiding carbon lock-in

Transition finance will not be available for new projects (i.e. expanding or establishing new gas field). In this case study example, AEP is seeking finance to retrofit an existing gas field and implement sustainability performance improvement that will progressively deliver emission reductions. As such, the project would proceed to Step 4A.

TABLE 4

Hypothetical emission intensity performance thresholds for natural gas supply sector (gCO₂e/MJ)

Timeframe	2022-2025	2025-2030	2030-2035	2035-2040	2040-2050
Emission intensity performance threshold (gCO ₂ e/MJ)	200	100	100	50	50

Step 4A: Pathway alignment

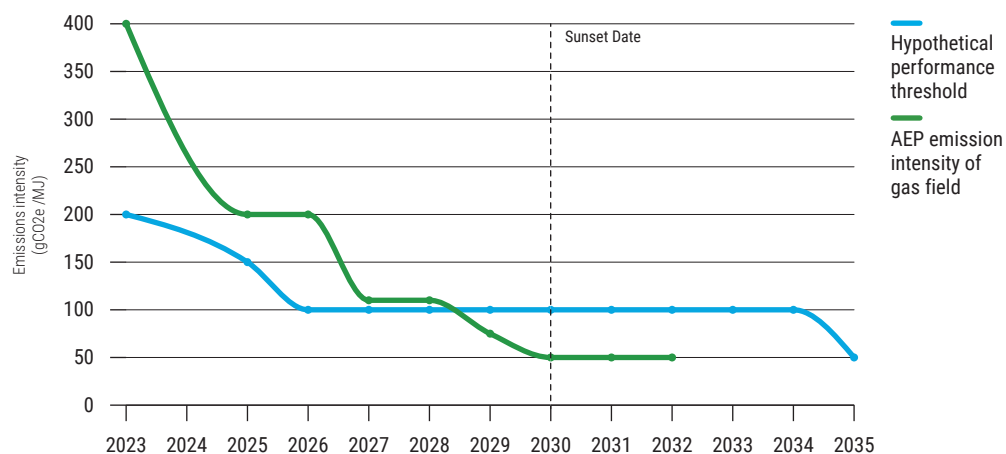
The final step in the process is assessing the activity against the relevant performance threshold criteria. Table 4 provides hypothetical performance thresholds for natural gas activities.

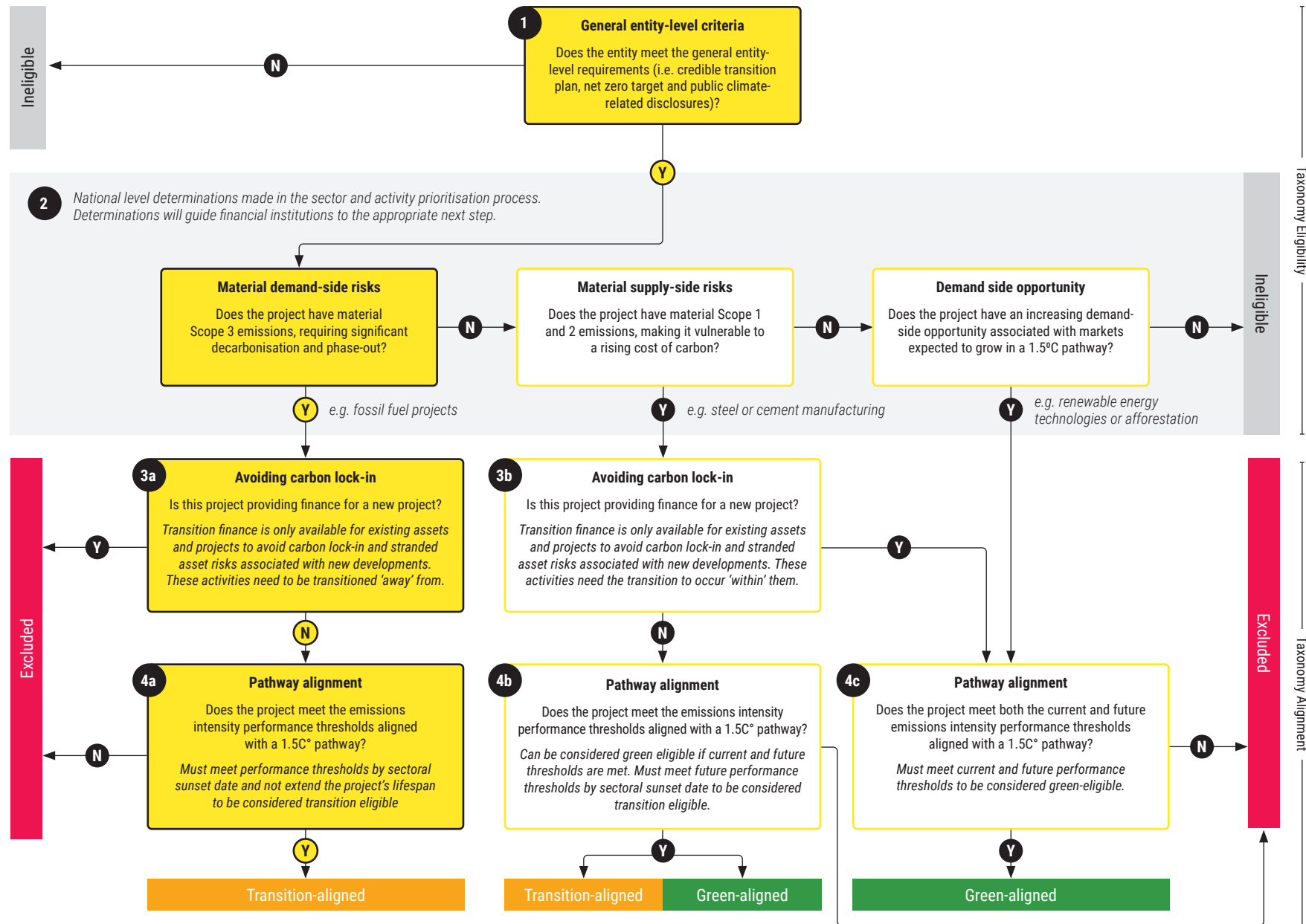
To be considered transition-aligned, the project must meet or exceed the performance thresholds by the sectoral sunset date. We have assumed a sectoral sunset date of 2030, by which time natural gas activities must meet the performance threshold or will be labelled 'excluded'.

In this scenario, AEP forecasts its gas field will meet the natural gas performance threshold by 2029 and remain below this threshold for the remainder of its lifetime (Figure 11). As such, the project could be labelled transition aligned. However, in addition to the emissions intensity performance threshold criteria, all activities will need to meet any additional minimum social safeguards and DNSH criteria within the Taxonomy. For the purpose of this case study, we assume AEP meets the minimum social safeguards and DNSH criteria.

FIGURE 11

Emission intensity of AEP's gas field compared to the hypothetical performance thresholds





Entity-level categorisation methodology

Entity-level assessments will be most relevant for financial institutions engaged in corporate-level equity and debt financing, and commercial lending. The following case study explores how the transition categorisation methodology decision tree presented in this research paper could be used by an investor planning to make an equity investment under the taxonomy.

Scenario: Australian Energy Producer (AEP) is one of Australia's largest energy providers. Given shifting community expectations, AEP has made a commitment to reach net zero by 2050 and its published transition plan does not include a reliance on offsets. AEP produces renewable electricity, primarily from wind turbines and a small biomass electricity generation facility, and sells natural gas sourced from its gas fields. Currently, electricity supply accounts for 35% of AEP's revenue, and gas supply accounts for 65%. However, the gas fields are expected to close by 2032. Technological advancements will enable AEP to progressively reduce the emissions produced by its biomass facility over time.

Green Capital (GC) has expressed interest in acquiring a 35% equity stake in AEP. This investment will form part of GC's Clean Energy Fund of which the equity stake in AEP will account for 10% of the portfolio. Regardless of the level of equity stake, 100% of emissions are included in the assessment of the entity's eligibility. Discussion of the level of portfolio level attribution for the purposes of reporting taxonomy alignment at Fund level is excluded for the purposes of this example.

Table 5 demonstrates AEP's current and projected performance broken down into sectoral components; electricity supply and gas supply. Please note the emissions intensities shown are intended to represent hypothetical values only.

Figure 14 highlights the steps GC would follow through the illustrative decision tree methodology. Further detail on the rationale for each progression is provided below.

Step 1: General entity criteria

GC begins by determining whether AEP meets the Australian taxonomy's general entity-level requirements; company-level net zero targets, a credible transition plan and public climate-related disclosures. For the purposes of this example, we will assume AEP meets the general entity criteria, and GC would proceed to Step 2.

Step 2: Sector breakdown

An entity-level assessment requires an activity-level assessment to be performed for each sectoral component of AEP. In this example, GC will need to perform an activity-level assessment for AEP's electricity supply activities (35% of total revenue) and gas supply activities (65% of total revenue). GC would then proceed to Step 3.

Step 3: Activity-level assessment

GC then assesses the eligibility of each sectoral component of AEP's operations. Australian taxonomy would include a list of eligible sectors that have criteria available to evaluate taxonomy alignment.

GC would check whether the sector is green and/or transition eligible. Green and transition eligibility of sectors within the taxonomy would be documented within the guidance. Green and transition eligibility determinations would be made at a national level as sectors are included within the scope of the Australian taxonomy. National-level determinations could be based on the relevant transition risks and opportunities for specific economic sectors.

TABLE 5 AEP's current and projected emission performance

AEP's sectoral breakdown ^A	Current FY23 Performance	Estimated FY25 Performance	Estimated FY30 Performance	Estimated FY35 Performance
Electricity supply ^B	35 gCO ₂ e/kWh	35 gCO ₂ e/kWh	25 gCO ₂ e/kWh	15 gCO ₂ e/kWh
Gas supply ^C (Current)	400 gCO ₂ e/MJ	400 gCO ₂ e/MJ	400 gCO ₂ e/MJ	Gas fields shut down by 2032
Gas supply (Project implemented)	400 gCO ₂ e/MJ	200 gCO ₂ e/MJ	50 gCO ₂ e/MJ	

A. Sectoral breakdowns are aligned with Australian and New Zealand Standard Industrial Classification (ANZSIC) codes.

B. Electricity supply emission intensities are hypothetical and include Scope 1 emissions. This is aligned with the TPI methodology for establishing benchmark global carbon intensity pathways for the electricity sector. The TPI methodology currently focuses on the emissions intensity of owned electricity generation, excluding power that is purchased by the utility and re-sold to customers.⁵²

C. Gas supply emission intensities are hypothetical and include Scope 1, 2 and 3 (category 11 – use of product) emissions. This is aligned with the TPI methodology for establishing benchmark global carbon intensity pathways for the oil and gas sector. The TPI methodology includes Scope 3 category 11 emissions in the benchmark because the vast majority of oil and gas lifecycle emissions stem from the use of these types of companies' sold products.⁵³

In this case study example, we assume electricity supply and gas supply are both eligible. We assume renewable electricity supply would be green eligible, given it has high demand-side opportunity in the transition to net-zero and is inherently sustainable. We assume natural gas supply, which has material demand-side risk and must be phased out (i.e. 'transition away'), are determined to only be transition-eligible (i.e. not eligible for green-labelling).

GC would therefore proceed to 4A for the natural gas supply sectoral assessment and proceed to 4C for the electricity supply sectoral assessment.

Step 4A and 4C: Pathway alignment

GC would then assess the sectoral components against the relevant performance threshold criteria. Table 6 provides hypothetical performance thresholds for natural gas and electricity supply sectors.

For the electricity supply sectoral component to be green aligned, it must currently meet and remain below the performance thresholds going forward. For the gas supply sectoral component to be transition-aligned, it must meet or exceed the performance thresholds by the sectoral sunset date. We have assumed a sectoral sunset date of 2030, by which time the natural gas supply sectoral component must meet the performance threshold or will be labelled 'excluded'.

In this scenario, AEP's electricity supply sectoral component meets the performance threshold and can be determined to be green-aligned (Figure 12). Further, AEP's natural gas supply sectoral component is forecast to meet the performance threshold by 2029 and can be determined to be transition-aligned (Figure 13). In addition to the emissions intensity performance threshold criteria, the entity would also need to meet each sectoral component's relevant minimum social safeguards and DNSH criteria within the Taxonomy. For the purpose of this case study, we assume AEP meets the minimum social safeguards and DNSH criteria.

Step 5: Aggregating activity-level assessments

The final step involves aggregating the individual activity-level assessments for each sectoral component to determine AEP's overall alignment with the Australian taxonomy. If the aggregation of the AEP's sectoral components is equal to or greater than 90% green, then it could be assessed as 100% green (pure play). However, assuming the activity-level assessments are aggregated by revenue, then AEP would be;

- 35% green-aligned (electricity supply currently accounts for 35% of AEP's revenue)
- 65% transition-aligned (gas supply currently accounts for 65% of AEP's revenue)

As such, if GC were to invest in AEP, it would report the investment as 35% green-aligned and 65% transition-aligned to the Australian taxonomy.

TABLE 6 Hypothetical emission intensity performance thresholds for natural gas and electricity supply sectors (gCO₂e/MJ)

Timeframe	2022-2025	2025-2030	2030-2035	2035-2040	2040-2050
Electricity supply emission intensity performance threshold (gCO ₂ e/kWh)	100	100	50	50	50
Natural gas supply emission intensity performance threshold (gCO ₂ e/MJ)	200	100	100	50	50

*Example green performance thresholds have been set to align with the EU and proposed Singapore Taxonomy thresholds. Emissions include Scope 1, 2 and 3.

**Example transition performance thresholds were estimated based on the current emission intensity of Australia's electricity supply, excluding black coal electricity generation, with a hypothetical sunset date of 2035. Emissions include Scope 1, 2 and 3.

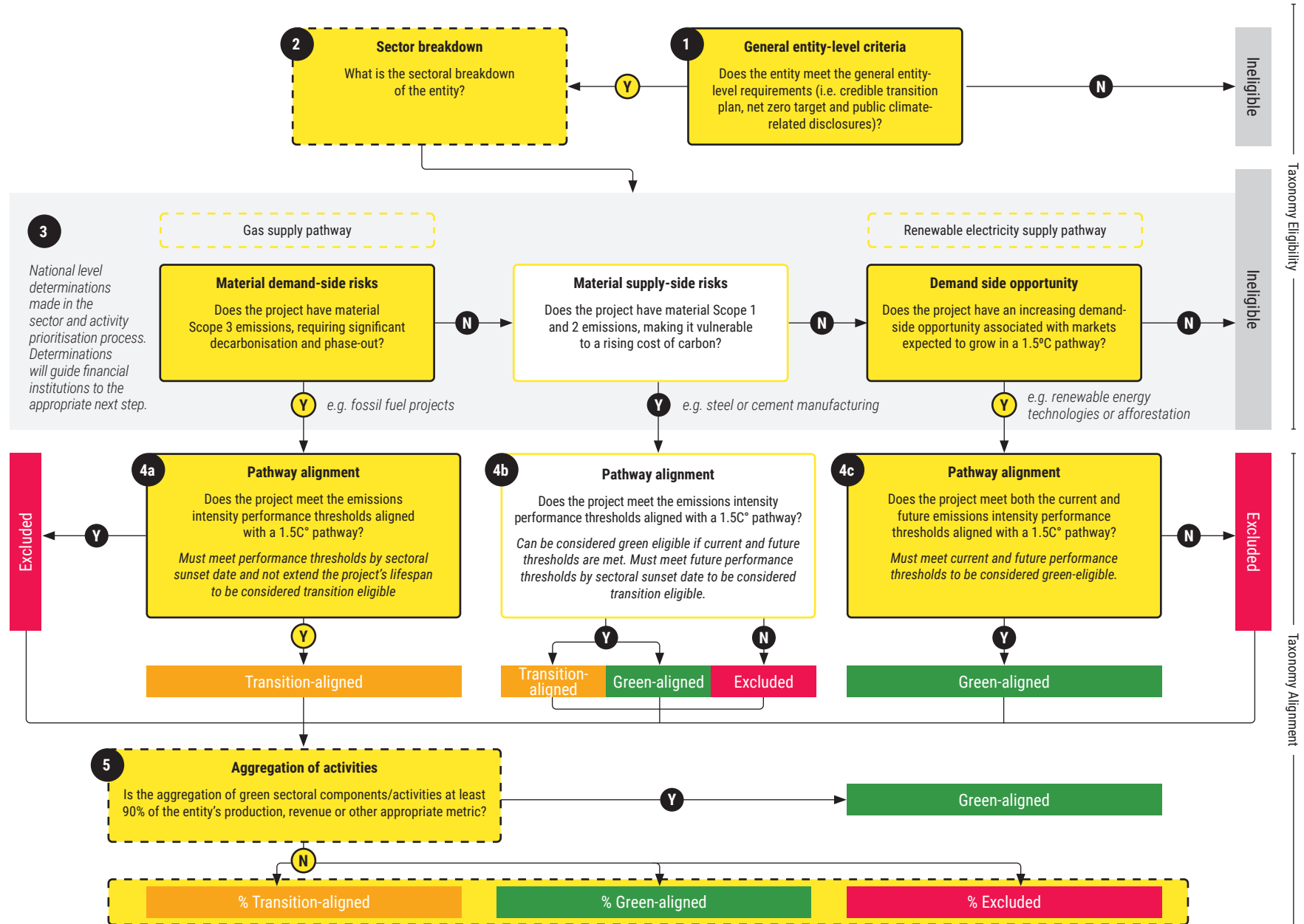


FIGURE 12

AEP's electricity supply emission intensity against the performance thresholds

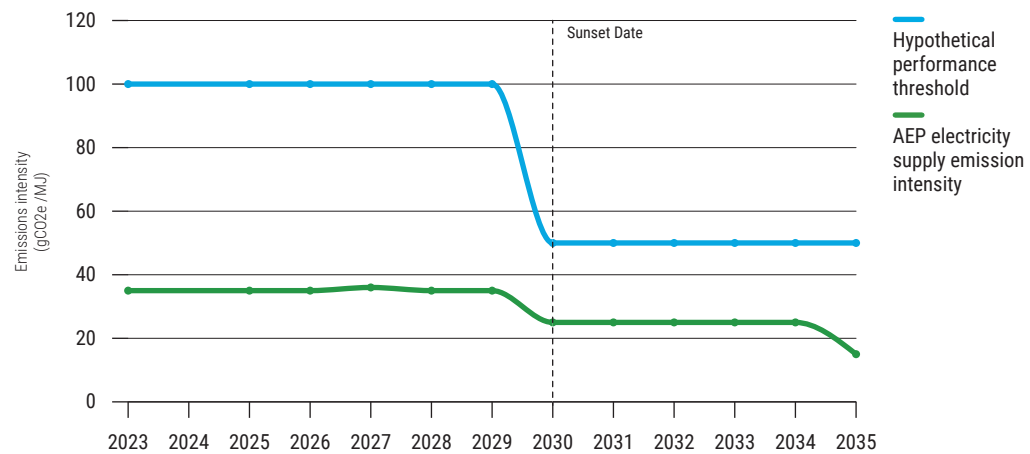
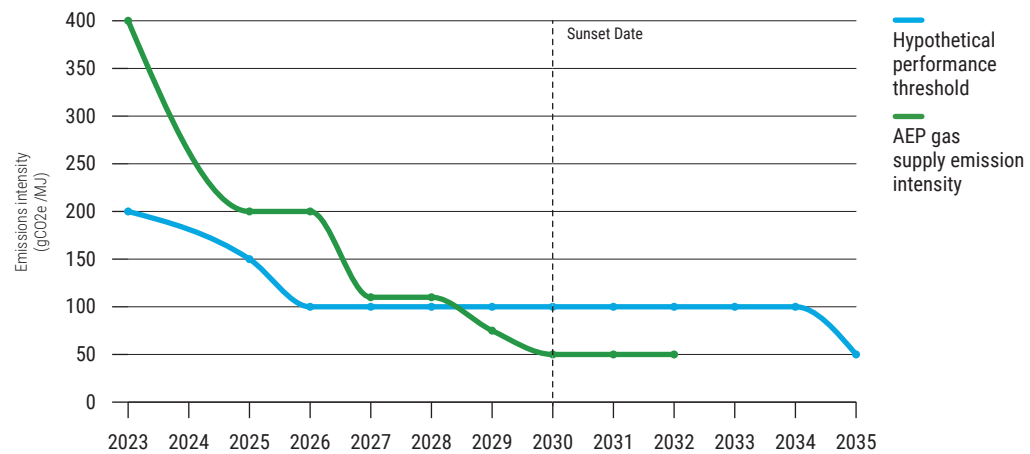


FIGURE 13

AEP's gas supply emission intensity against the performance thresholds



1 Analysis of international taxonomies and considerations for Australia, Australian Sustainable Finance Institute, 2022.

2 Designing Australia’s sustainable finance taxonomy, Australian Sustainable Finance Institute, 2023.

3 Solid fossil fuels includes hard coal (e.g. anthracite, coking coal and other bituminous coal), brown coal (e.g. sub-bituminous coal and lignite) and coal products (e.g. patent fuel, coke oven coke, gas coke, coal tar and brown coal briquettes).

4 Seizing Australia’s energy superpower opportunities: Assessing the outlook for Australia in a net zero world, EY Net Zero Centre, 2023.

5 The regular updates should be clearly specified. The frequency of updates should be determined with reference to international best practice, which is between 3-5 years.

6 Ibid.

7 Climate Change Act 2022 (Cth), <https://www.legislation.gov.au/Details/C2022A00037>

8 Designing Australia’s sustainable taxonomy, Australian Sustainable Finance Institute Taxonomy Project, 2023.

9 Decarbonisation Futures: Solutions, Actions and Benchmarks for a Net Zero Emissions Australia, ClimateWorks, 2020.

10 Identifying a Green Taxonomy and Relevant Standards for Singapore and ASEAN, Green Finance Industry Taskforce (GFIT), 2022.

11 Taxonomy Roadmap Report: Mobilising Finance for Sustainable Growth by Defining Green and Transition Investments, Sustainable Finance Action Council, 2022.

12 Excluding residential emissions. Source: National Inventory by Economic Sector 2020, DCCEEW, 2022.

13 Trade and investment trends in a decarbonising world, Climate Change Authority, 2021.

14 Taxonomy Roadmap Report: Mobilising Finance for Sustainable Growth by Defining Green and Transition Investments, Sustainable Finance Action Council, 2022.

15 Global Financial Taxonomies – Considerations for the Canadian Context, Canadian Standards Association, 2022.

16 In the K-Taxonomy, the ‘Green Category’ is sub-categorised by sector and includes 64 activities essential for carbon neutrality or environmental improvement such as renewable energy generation, carbon capture, waste resource recycling and low carbon agriculture. The ‘Transition Category’ includes 5 specific activities considered necessary to facilitate the transition toward carbon neutrality in South Korea, including; greenhouse gas emission reductions for small and medium-sized enterprises; production of energy based on liquified natural gas (LNG) and mixed gas; production blue hydrogen from LNG; building eco-friendly ships and 5) transport via eco-friendly ships. Source: K-Taxonomy, Ministry of Environment of Korea, 2021.

17 SBTi criteria and recommendations for near-term targets: Version 5.1, 2023.

18 Taxonomy Roadmap Report: Mobilising Finance for Sustainable Growth by Defining Green and Transition Investments, Sustainable Finance Action Council, 2022; Identifying a Green Taxonomy and Relevant Standards for Singapore and ASEAN, GFIT, 2022.

19 Taxonomy Roadmap Report: Mobilising Finance for Sustainable Growth by Defining Green and Transition Investments, Sustainable Finance Action Council, 2022; Identifying a Green Taxonomy and Relevant Standards for Singapore and ASEAN, GFIT, 2022; The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transition, Platform on Sustainable Finance, 2022; Promoting the international interoperability of a UK Green Taxonomy, Green Finance Institute, 2023.

20 Solid fossil fuels includes hard coal (e.g. anthracite, coking coal and other bituminous coal), brown coal (e.g. sub-bituminous coal and lignite) and coal products (e.g. patent fuel, coke oven coke, gas coke, coal tar and brown coal briquettes).

21 Taxonomy Roadmap Report: Mobilising Finance for Sustainable Growth by Defining Green and Transition Investments, Sustainable Finance Action Council, 2022.

22 The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transition, Platform on Sustainable Finance, 2022.

23 Consultation: [The Transition Plan Taskforce Disclosure Framework, TPT, 2022.](#)

24 Integrity matters: [Net zero commitments by businesses, financial institutions, cities and regions: UN’s High Level Export Group on the Net Zero Emissions Commitments of Non-State Entities, 2022.](#)

25 Climate Bonds Standard: Globally recognised, Paris-aligned certification of debt instruments, entities and assets using robust, science-based methodologies: Checklist for entity certification: Version 1.0, Climate Bonds Initiative, 2023.

26 The Climate Transition Finance Handbook: Guidance for Issuers, International Capital Market Association, 2023.

27 Taking capex into consideration will provide insight into how an entity is investing in their climate mitigation goals and whether this is reflected in their current and committed financial plans.

28 Consultation: [The Transition Plan Taskforce Disclosure Framework, TPT, 2022.](#)

29 Integrity matters: [Net zero commitments by businesses, financial institutions, cities and regions: UN’s High Level Export Group on the Net Zero Emissions Commitments of Non-State Entities, 2022.](#)

30 Taxonomy Roadmap Report: Mobilising Finance for Sustainable Growth by Defining Green and Transition Investments, Sustainable Finance Action Council, 2022.

31 The regular updates should be clearly specified. The frequency of updates should be determined with reference to international best practice, which is between 3-5 years.

32 Identifying a Green Taxonomy and Relevant Standards for Singapore and ASEAN, Green Finance Industry Taskforce, 2022.

33 Ibid.

34 TPI’s methodology report: Management quality and carbon performance: Version 4.0, TPI, 2021

35 Taxonomy Roadmap Report: Mobilising Finance for Sustainable Growth by Defining Green and Transition Investments, Sustainable Finance Action Council, 2022

36 Identifying a Green Taxonomy and Relevant Standards for Singapore and ASEAN, Green Finance Industry Taskforce, 2022.

37 Identifying a Green Taxonomy and Relevant Standards for Singapore and ASEAN, GFIT, 2022; Financing credible transitions: How to ensure the transition label has impact, CBI, 2020.

38	Climate Bonds Standards: Globally recognised, Paris aligned Certification of Debt instruments, Entities and Assets using robust, science-based methodologies 2023.	48	Scope 3 emissions are considered material when they represent over 40% of total Scope 1, 2 and 3 emissions, according to the Science-Based Target Corporate Manual, version 2.1, April 2023, Science-Based Target Initiative.
39	Example adapted from: Climate Bonds Standard: Globally recognised, Paris-aligned certification of debt instruments, entities and assets using robust, science-based methodologies, Version 4.0, Climate Bonds Initiative, 2023, available at: www.climatebonds.net/climate-bonds-standard-v4#:~:text=What%27s%20new%20in%20Standard%204.0%3F%20The%20structural%20expansion,the%20real%20economy%29%2C%20assets%20and%20sustainability-linked%20debt%20instruments. Data sourced from: https://www.transitionpathwayinitiative.org/sectors#publications	49	Technologies that are inconsistent with a 1.5°C pathway and have economically and technically viable alternatives will require immediate phase-out. These primarily relate to coal and new oil and gas.
40	Global Guiding Principles for Developing Climate Finance Taxonomies: A key enabler for transition finance, Global Finance Markets Association, 2021.	50	TPI Sectoral Decarbonisation Pathways, Transition Pathway Initiative, 2022.f
41	Designing Australia's sustainable finance taxonomy, Australian Sustainable Finance Institute, 2023.	51	Ibid
42	Climate Bonds Standard: Globally recognised, Paris-aligned certification of debt instruments, entities and assets using robust, science-based methodologies: Checklist for entity certification: Version 1.0, Climate Bonds Initiative, 2023.	52	TPI Sectoral Decarbonisation Pathways, Transition Pathway Initiative, 2022.
43	Adapted from Designing Australia's sustainable finance taxonomy, Australian Sustainable Finance Institute, 2023.	53	Ibid
44	This approach has been adopted from Taxonomy Roadmap Report, Canadian Sustainable Finance Action Council, September 2022		
45	Scope 3 emissions are considered material when they represent over 40% of total Scope 1, 2 and 3 emissions, according to the Science-Based Target Corporate Manual, version 2.1, April 2023, Science-Based Target Initiative.		
46	Technologies that are inconsistent with a 1.5°C pathway and have economically and technically viable alternatives will require immediate phase-out. These primarily relate to coal and new oil and gas.		
47	Carbon lock-in: A situation where emissions-intensive assets, technologies and energy systems that have long lifespans 'lock in' future emissions that are inconsistent with representative 1.5 °C climate scenarios. And, as a result, 'lock out' lower-carbon alternatives.		



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