ASEAN Capital Markets Forum

ASEAN TRANSITION FINANCE GUIDANCE

VERSION 2
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FOREWORD

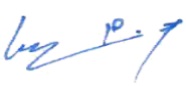
By Chair of the ASEAN Capital Markets Forum

Since the publication of the ASEAN Transition Finance Guidance Version 1, the conversation surrounding the role of transition has gained further traction. The Association of Southeast Asian Nations (ASEAN) has been at the forefront of discussions on transition finance as the need for transition is real, significant and urgent for the region. It would not be an exaggeration to say that transition finance is key to achieving ASEAN's decarbonisation goals. ASEAN is in a unique position and with wide perspectives, given the varying context and needs of the ten ASEAN Member States (AMS). Geographical contextualisation is crucial, and this is where a credible framework for assessing and demonstrating a credible transition in ASEAN, which is grounded in existing global and regional transition finance guidelines, to facilitate access to financing, is imperative.

The ASEAN Capital Markets Forum (ACMF)'s *Roadmap for ASEAN Sustainable Capital Markets* and the ASEAN Working Committee on Capital Market Development (WC-CMD)'s *Report on Promoting Sustainable Finance in ASEAN*, both published in 2020, identified key elements that are needed to advance ASEAN's sustainability agenda and ensure that capital is directed towards credible sustainability efforts. These elements are: (i) an ASEAN taxonomy, (ii) transition finance frameworks, (iii) disclosures, and (iv) creating a virtuous cycle for demand and supply of sustainable finance. The first three elements form the three pillars of the region's sustainable finance ecosystem and the fourth, the lever to drive sustainable finance.

The ASEAN Transition Finance Guidance (ATFG) serves as a framework for transition finance for ASEAN. It was developed with regional contextualisation in mind, including relevance to the 70 million of micro, small and medium-sized enterprises in Southeast Asia[1] and the need for real economy transitions. The ATFG Version 1, released in October 2023, provided a realistic and practical approach to transition finance for emerging markets and developing countries and received positive response from stakeholders. One major contextualisation was the recognition that not everyone in the region can currently commit to a 1.5°C target and as a result, a tiered approach, similar to that of the ASEAN Taxonomy for Sustainable Finance, was introduced, allowing for companies to be categorised as Aligned and Aligning 1.5°C, Aligned and Aligning Well Below 2°C, or Progressing. The other issue addressed was the lack of geographically contextualised transition pathways. As such, the ATFG Version 1 proposed the use of a wider variety of transition pathways, both science based, and industry published. Since its publication, the ACMF has engaged stakeholders on its approach, design and content and the conclusion of those engagements have been incorporated in this document, the ATFG Version 2. The ACMF remains committed to proactively supporting the capital markets to finance transition and has designed the ATFG to be a living document that is responsive to progress in evolving global transition approaches and the changing needs of the ASEAN region and the AMS.

The momentum for transition finance continues to grow and ASEAN is cognizant of the significant role the capital markets play in driving the sustainability agenda. The ACMF continues to strive to ensure that no one is left behind in ASEAN's transition journey and hopes that ASEAN's unique perspectives can be addressed using the ATFG Version 2 approach, and capital is directed towards credible transition efforts in the region. The ACMF will also promote more international dialogue on transition finance using the ATFG Version 2 to deploy the 'common but differentiated responsibilities' approach through geographical contextualisation.



Mrs. Phengsy Phengmuong
Secretary-General of the Lao Securities Commission Office
ACMF Chair 2024

[1] Association of Southeast Asian Nations, Development of Micro, Small, and Medium Enterprises in ASEAN (MSME) [website], https://asean.org/our-communities/economic-community/resilient-and-inclusive-asean/development-of-micro-small-and-medium-enterprises-in-asean-msme/

FOREWORD

by Asian Development Bank

Asia's companies require substantial financing to implement their climate transition plans, demanding innovative solutions to bridge this wide funding gap and to create sustainable and resilient economies. As such, the release of the ASEAN Transition Finance Guidance (ATFG) in 2023 was a major achievement for the ASEAN Capital Markets Forum (ACMF) and marked an important milestone in the regional dialogue and collaboration on the challenges of transitioning to low-carbon economies.

This update of the guidance, its second version, was created to help drive urgent action to develop new innovative financing solutions for a sustainable future for all, recognizing the region's vulnerability to climate change and its dependence on carbon-intensive industries.

To this end, capital markets can play a catalytic role in mobilizing climate finance from the private sector and in supporting a green transition. Building on the ASEAN Taxonomy for Sustainable Finance, the ATFG is providing much-needed guidance to companies in the Association of Southeast Asian Nations (ASEAN) on assessing and demonstrating a credible transition, aiming to enhance their access to financing from private investors keen to ensure that they are aligned with regional and global transition expectations and needs.

In turn, however, we must also align guidance with evolving investor demands, advances in climate science, and the specific needs of ASEAN stakeholders. This version of the ATFG therefore reflects continuous stakeholder feedback and framework improvements to ensure ongoing relevance and effectiveness in climate finance and sustainable development in the region. This includes incorporating additional guidance on various types and applications of transition finance, including reference pathways for real economy companies to develop and financial institutions to assess transition plans.

The Asian Development Bank (ADB) proudly supports the ATFG development, including this second version, under our technical assistance *Promoting an Interconnected, Inclusive, and Resilient ASEAN Capital Market*. This illustrates our commitment to accelerating a just and green transition in the region by encouraging businesses to adopt ambitious climate strategies that align with investor expectations. This support also aligns with our efforts to strengthen ASEAN's sustainable finance frameworks, including in the development of the ASEAN Taxonomy for Sustainable Finance or the GSS+ bond standards.

As climate change increasingly impacts ASEAN economies, enhanced regional cooperation is essential for achieving the region's transition goals towards net zero. Through our ongoing and long-standing partnership with the ACMF, we jointly aim to develop integrated, sustainable, and resilient capital markets in ASEAN. Together, we can ensure the region's economies thrive while effectively addressing climate change challenges.

Christine Engstrom
Senior Director
Finance Sector Office
Asian Development Bank

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Introduction to Version 2 of the ASEAN Transition Finance Guidance

In October 2023, the ASEAN Capital Markets Forum (ACMF) released the ASEAN Transition Finance Guidance (ATFG) to provide entities with a framework for assessing and demonstrating a credible transition within ASEAN to facilitate access to capital market financing. The ATFG aims to support financial institutions to direct funds towards companies undergoing credible transitions and encourage real economy businesses to formulate credible transition plans. The ATFG outlines that a credible transition plan should be sufficiently ambitious and demonstrate the robustness of the entity's ability to deliver on that ambition.

The ACMF's ambition for the ATFG is for it to become a valuable resource in the creation of a deeper market for transition finance in ASEAN by providing a regional guidance for what can be considered as a transitioning company which could then be used to create transition-labelled financial instruments as part of a 'transition' asset class. The intention is that the ATFG is equally useful to financial institutions and investors who want to ensure the finance they provide is being used to promote credible transition, real economy companies who want to understand the measure against which their transition plans are being judged, and other stakeholders such as local regulators in each ASEAN member state.

Following the release of the ATFG, the ACMF ran a consultation process with key stakeholders to identify areas of the ATFG which could be clarified or deepened to further benefit the market. The consultation was carried out through a series of interviews conducted during June and July 2024, involving participants from financial institutions, rating agencies, and providers of Second Party Opinions (SPOs).

The ATFG has been updated to this second version (ATFG V2) in light of the consultation. AFTG V2 replaces the prior version by directly incorporating additional details which build on the initial version. These additional details are in two key areas:

- Providing additional guidance and clarity on different types and applications of Transition Finance to help unify the terminology and therefore understanding among market participants
- Providing guidance on reference pathways for real economy companies to use to set their transition plans and financial institutions to use when assessing entities' transition plans

Further details on the key findings from the consultation process and how they have been addressed in ATFG V2 are outlined in **Appendix A**.

Executive Summary

Purpose of this guidance

Delivering on ambitious climate targets demands enormous mobilisation of capital across the entire financial system. While leading emission-intensive companies globally have developed plans to transition their businesses, they require financing for successful execution. This is the role of transition finance, which directs capital to transitioning companies across debt, equity and other forms of financing instruments.

The ASEAN Transition Finance guidance addresses how entities may assess or demonstrate a credible transition in ASEAN to obtain financing from capital markets, making use of relevant resources as needed, thereby aiming to:

- Accelerate the efforts of financial institutions to direct finance to transitioning companies, as the tiering identifies which companies should be the focus of such efforts.
- Create incentives for real economy companies to develop more ambitious and credible transition plans, through differentiating what commands a greater demand premium from investors.

To be effective, this guidance needs to satisfy the demands of investors while remaining attainable by ASEAN real economy companies. Its principles are grounded in existing international and regional transition finance guidelines to ensure coherence with global and scientific expectations, and are adapted to meaningfully address stakeholder pain points as informed by an extensive survey of ASEAN corporates' transition plans and investor interviews. The guidance is voluntary and may be subject to future updates.

Investors, real economy companies and other stakeholders may view this guidance as a basis for:

- Issuing, developing, or managing transition-labelled financing instruments (albeit further subject to existing requirements and/or frameworks in their respective contexts).
- Increasing the quantity of financing that supports companies' transitions as well as the transition objectives of financial institutions or investors, regardless of whether that finance is explicitly transition-labelled.
- Building fundamental climate transition capabilities that are increasingly requisite for general corporate financing, and developing transition plans that disclose these to demonstrate a given company's transition preparedness to capital market participants to aid their assessments of the company's transition and physical risk and help the company to maintain access to finance.

Clarifying the term "Transition Finance"

The term "Transition Finance" is not consistently used or defined between different parties. This guidance focuses primarily on finance (labelled and unlabelled) extended to companies at the entity-level to facilitate their company-wide transitions. However, the term "Transition Finance" is also applied to describe other types of financing in other settings. It is useful to differentiate between three broad applications of finance that are required to enable the ASEAN economy to transition, all of which carry the term "Transition Finance" in certain contexts:

- **Green Finance**: finance provided to specific green activities or assets with low to zero emissions in alignment with Paris Agreement.

- **Asset-level Transition Finance**: finance provided to specific transitionary assets or activities that contribute towards decarbonisation in the short-term but are not fully green or long-term climate solutions.
- **Entity-level Transition Finance**: general-use finance provided to entities undergoing ambitious and credible transitions that are aligned with the Paris agreement.

Approach to assessing transition credibility

Entities looking to be considered as credibly transitioning should demonstrate two main elements: sufficient climate ambition aligned with the objectives of the Paris Agreement, and robustness of the entity's ability to deliver on said ambition. This reflects the minimum boundaries of what the market is willing to accept as credible in accordance with international guidelines, with additional guidance provided in this document on how entities may interpret select criteria in the ASEAN context (e.g., selection of geographically relevant transition pathways).

Demonstrating sufficient climate ambition requires a company to be either already aligned to or aligning to a science-based pathway. The chosen pathway should be science-based from one of the commonly accepted models (such as the IEA, NGFS or others).

In application, the reference pathways currently available may not always be readily usable by entities which have different geographical or operational coverages. In this case, ASEAN entities may also choose to augment reference pathways to reflect their business more accurately. This should only be done where necessary to enhance the applicability and comparability of the reference pathway to the purpose it is being used for. For instance, to ensure that the augmented pathway matches with the critical scopes of emissions to measure for an entity, that it covers the same sectors as the entity's business activities, that it covers the same Greenhouse Gas (GHG) emissions that are material for the entity, and to incorporate local nuances of the geographies the entity operates in. There is precedent for augmenting reference pathways for these purposes. Notably in ASEAN, several major financial institutions have augmented reference pathways to enable them to set portfolio decarbonisation targets that better reflect the realities of companies in their portfolios. This approach could be replicated by real economy companies when developing their transition plans.

Aligned or aligning is defined as demonstrating a long-term ambition to converge to the science-based pathway, and a short-term plan to be at least parallel to (for companies currently above the reference pathway) or staying below the line (for those below). The plan must demonstrate that an entity has sufficiently robust ability to deliver on its ambition. To do so, the plan should include:

- **An Implementation strategy**. This should in turn include:
    - An appropriately resourced and detailed action plan with a roadmap of actions to be taken
    - A capital allocation plan that explains how the plan will be financed
    - Risk assessment and mitigation
    - Ongoing monitoring
    - Governance
- **Disclosure of ongoing progress** using appropriate or required standards, such as ISSB's IFRS S1 and S2[1]

[1] International Financial Reporting Standards (IFRS). ISSB issues inaugural global sustainability disclosure standards. June 2023.

- **Independent verification** by a qualified party following global standards for sustainability assurance, such as IAASB's ISSA 5000[2]
- **Consideration of just transition** balancing climate transition with other sustainability factors

These elements borrow on existing international approaches and aim to maximise the interoperability of ASEAN transition finance with global transition finance – this should make it easier for issuers to issue, and for investors operating across continents to assess new opportunities and manage their portfolios.

This guidance builds upon the work of and is intended to complement the ASEAN Taxonomy which sets requirements to qualify under the Green and Amber tiers, and in the Plus standard has defined quantitative thresholds for various economic activities with retirement dates for Amber tiers and review periods for all tiers that creates a ratcheting of requirements over time. The transition finance guidance builds on that by creating an approach to assess the forward looking plans of companies and facilitate investor support for those companies. Any company may in principle qualify for transition finance – the current position is not a restriction, only the forward looking plan. In other words, to be considered for transition finance, companies will need to demonstrate how they intend to transition their operations and use of technologies through the tiers defined in the ASEAN Taxonomy at a speed that is consistent with a science-based pathway.

To meaningfully represent the differences in market expectations beyond these boundaries and encourage progress of real economy companies in ASEAN, this guidance proposes three tiers for transitioning entities:

1. **Aligned and Aligning – 1.5°C**: Entities that demonstrate sufficient climate ambition that is already aligned or aligning with a science-based 1.5°C trajectory and meet all other criteria of transition credibility.
2. **Aligned and Aligning – Well below 2°C**: Entities that demonstrate sufficient climate ambition that is already aligned or aligning with a science-based well below 2°C trajectory and meet all other criteria of transition credibility.
3. **Progressing**: Entities that demonstrate most but not all elements of ability to deliver and/or a climate ambition that is material but not yet aligned or aligning to well below 2°C, and have committed to addressing any material omissions in the next 2 years.

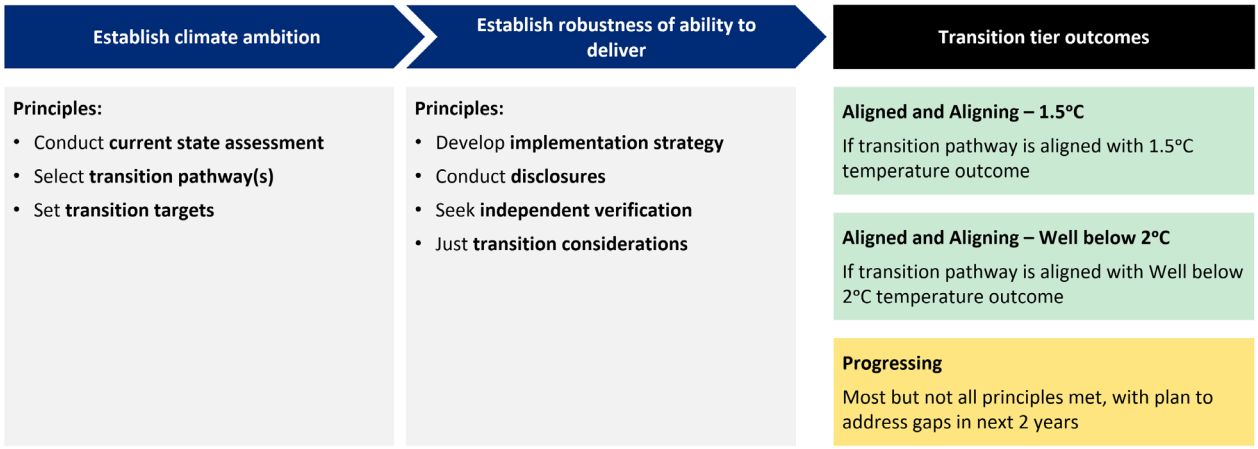
These tiers are intended to facilitate financing activity by providing a consistent basis for evaluating corporates' transition approaches. The 1.5°C tier represents the gold standard for what is globally accepted as a credible transition, consistent with international guidance, while Well below 2°C is more reflective of climate ambitions across ASEAN while maintaining the robustness of all other criteria. Additionally, including a Progressing tier is designed for companies that meet most but not all criteria of transition credibility, and serves two purposes: facilitating capability development of real economy companies, and directing capital towards the more climate mature even if they may not meet all requirements. All three tiers are worthy of financing and investors should seek to support those companies aligned and aligning to 1.5°C, and play their part, alongside policymakers, industry bodies and others, in encouraging companies in the other tiers to strengthen their plans by supporting with financing. However, all three represent tiers that a climate conscious investor should remain supportive of.

Many of the necessary components are now being put into place to facilitate real economy companies to start their transition journey. This guidance focuses on outlining the necessary principles for companies to credibly demonstrate their transition to their financiers with a goal of aiding financial institutions to direct capital to transitioning companies by establishing tiers that differentiate climate ambition and transition plan quality. Real economy companies should now have a solid foundation to begin setting their targets, developing transition plans, and commence operationalisation. As national governments develop additional

[2] International Auditing and Assurance Standards Board (IAASB). International Standard on Sustainability Assurance 5000. 2023.

policies and regulations, and as global climate expectations and regional maturity evolve, the guidance may be updated to further support capital market participants in their pursuit of climate ambitions.

Exhibit 1: Summarised view on demonstrating transition finance credibility and resulting tiering



Note. This guidance aims to be as consistent with key principles of existing guidelines and initiatives as possible, and discrepancies in wording or terminology are unintentional. Unless clearly defined or otherwise stated, this guidance also does not provide or intend to adopt existing technical definitions of terms. To illustrate, "materiality" is used to mean "the majority of" or "the importance of", and is not intended to be aligned with the technical definition in the IFRS Sustainability Disclosure Standard nor any other relevant definitions from climate-related guidelines or initiatives.

1. Introduction

1.1. What is "Transition Finance"?

Addressing climate change is the great industrial challenge of our time, requiring wholesale technological and behavioural change across nearly all sectors and all countries in the global economy. Making this change will require enormous investment, with estimates ranging from US$125[3] to US$200[4] TN globally between now and 2050. Private capital has a key role to play in this transition – proactive funding of the Green transition is essential to an accelerated transition, whilst global financial institutions face the attractive prospect of investing in a global megatrend that is well signposted and supported by coordinated government policy.

Financial institutions have responded to this challenge in several ways:

- **Exclusionary policies**. To avoid the financial risks associated with assets left unproductive by the transition ("stranded assets") and to limit reputational risks from supporting businesses that operate them, financial institutions have withdrawn funding from high-emitting activities and businesses. This also has the benefit of increasing cost of capital for these activities by lowering access to cheaper debt. This is most obvious in the coal industry, where the withdrawal of much finance has accelerating industrial transitions away from coal.
- **Sustainable finance targets**. New asset classes of sustainable finance were created – Green Loans, Green Bonds and Sustainability-linked instruments in particular. For use of proceeds financing specifically, efforts aimed to identify new technologies that needed accelerated investment, and direct financing towards them. The ensuing competition has lowered the cost of capital for these technologies. To help define the eligible assets for various purposes such as planning, governments have developed or are in the process of developing taxonomies that define sustainable activities, including the ASEAN Taxonomy for Sustainable Finance, as well as national taxonomies developed by ASEAN Member States.
- **Portfolio alignment targets**. One of the key scientific advances in the climate field has been the development of sectoral pathways – independent scientific views of the required pace of transition for different industrial sectors needed for the world to achieve net zero emissions and limit warming to a target range. Many financial institutions have adopted these pathways to set their own targets for financed emissions (or average emissions intensity), either at a portfolio level or for each sector they are financing. This has the advantage of being comprehensive, and mobilises large parts of financial institutions' balance sheets towards the transition.

What is further needed, however, is the importance of transition efforts being taken by existing industrial companies and utilities. Leading emissions-intensive companies around the world have developed their own plans to transition their businesses. These companies will span all the activity categories in a traditional taxonomy – with high-emitting activities that are being phased out, through intermediate technologies that reduce emissions without delivering zero emissions, and with an increasing share of leading low emissions technologies.

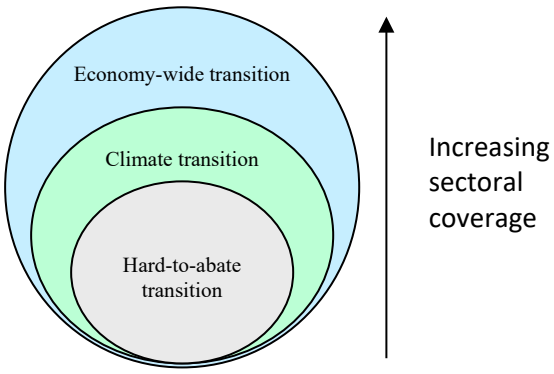
These companies need finance – ensuring that more finance is directed towards companies with more ambitious and credible plans is a powerful lever by which finance can accelerate the transition. This is the role that **transition finance** should play.

[3] UNFCCC Race to Zero campaign and the Glasgow Financial Alliance for Net Zero. Net Zero Financing Roadmaps. November 2021.
[4] BloombergNEF. The $7 Trillion a Year Needed to Hit Net-Zero Goal. December 2022.

In recent years, global organisations and institutions have developed multiple papers, reports and guidelines to help define transition finance and promote its adoption among market players. These frequently include guidelines on how companies should create credible corporate transition plans, and how financial institutions should assess them. Glasgow Financial Alliance for Net Zero (GFANZ) [5] has broadly defined transition finance as the investment, financing, insurance and related products and services that are necessary to support an orderly real-economy transition to net zero. According to The Organisation for Economic Co-operation and Development (OECD)[6] , transition finance is understood as finance deployed or raised by corporates to implement their net-zero transition, in line with the temperature goal of the Paris Agreement and based on credible corporate climate transition plans. The International Capital Market Association (ICMA)[7] has identified three overlapping definitions in general use for transition finance, differing in terms of sectoral coverage of each definition (see **Exhibit 2**):

1. **Economy-wide transition**: transformation of the entire economy with the objective of meeting the goals of the Paris Agreement but also wider sustainable objectives e.g., biodiversity or circular economy
2. **Climate transition**: covers the goals of the Paris Agreement and the target of achieving Net Zero, but typically with a narrower sectoral or industry focus especially on the energy and high-emissions sectors
3. **Hard-to-abate transition**: emphasises the specific challenges of reducing the emissions of the fossil fuel and hard-to-abate-sectors, or promoting more sustainable alternatives to their output

Exhibit 2: Sectoral coverage of Transition Finance according to ICMA[8]



Other industry bodies and financial institutions have defined transition finance in their own ways. Definitions tend to be similar and broadly refer to the financing required to meet the global ambition to reach net-zero emissions. However, alignment often differs slightly at granular level due to differing views or priorities of different stakeholders and/or jurisdictions. **The lack of consensus on a Transition Finance definition has led to difficulties in driving congruence in transition finance efforts and discussions**, as market participants may be discussing different things as their interpretations of what it is may vary.

[5] Glasgow Financial Alliance for Net Zero (GFANZ). Defining Transition Finance and Considerations for Decarbonisation Contribution Methodologies (Consultative Document). September 2023.
[6] Organisation for Economic Co-operation and Development (OECD). OECD Guidance on Transition Finance. October 2023.
[7] International Capital Market Association. Transition Finance in the Debt Capital Market. February 2024.
[8] International Capital Market Association. Transition Finance in the Debt Capital Market. February 2024.

In this version of the Guidance, we will provide distinctions between the multiple interpretations of Transition Finance, contextualised to ASEAN with reference towards existing publications and guidance such as the ASEAN Taxonomy for Sustainable Finance V3.

1.1.1. Clarifying the Term "Transition Finance"

The term "Transition Finance" is often used as a wide concept to cover multiple different types of finance and applications. The view of the ACMF is that the specific type of finance used for transitionary activities or transitioning entities should not be the defining characteristic of transition finance. It should not matter whether the finance is provided through equity investment, corporate bonds, bank debt, or other financing instruments. However, it is useful to distinguish between the application of the finance to clarify understanding between market participants. Three broad applications of finance are required to enable the ASEAN economy to transition:

- **Green Finance**: finance provided to specific green activities or assets with low to zero emissions in alignment with Paris Agreement.
- **Asset-level Transition Finance**: finance provided to specific transitionary assets or activities that contribute towards decarbonisation in the short-term but are not fully green or long-term climate solutions.
- **Entity-level Transition Finance**: general-use finance provided to entities undergoing ambitious and credible transitions that are aligned with the Paris agreement.

The remainder of this section provides further details on these three applications of finance, seeking to provide guidance on the different criteria that define finance under each category.

1. Green Finance

Green Finance is financing provided to specific green assets or activities with low to zero emissions in alignment with Paris Agreement. An example of this is financing a solar farm in the context of a power generation company (see **Exhibit 3**).

Green Finance is necessary to enable the economy-wide transition to low to zero emissions. However, as the object of financing is already green as per criteria that have been well-established by existing taxonomies such as the ASEAN Taxonomy, Green Finance can be considered separately to Transition Finance.

2. Asset-level Transition Finance

Asset-level Transition Finance is financing provided to specific transitionary assets or activities that contribute towards decarbonisation in the short-term but are not fully green or feature long-term decarbonisation solutions. These are assets or activities whose emissions are typically in line with, or lower, than current levels within a sector that are needed for a time-limited period as part of a credible path to reduce emissions, while replacement green assets or activities are being developed and adopted. An example of this is the financing of a specific gas-fired power plant within the context of a transitioning power generation company (see **Exhibit 3**).

Assets or activities which can be considered eligible for Asset-level Transition Finance will generally be identified by the Transition or Amber tiers of published taxonomies such as the ASEAN Taxonomy for

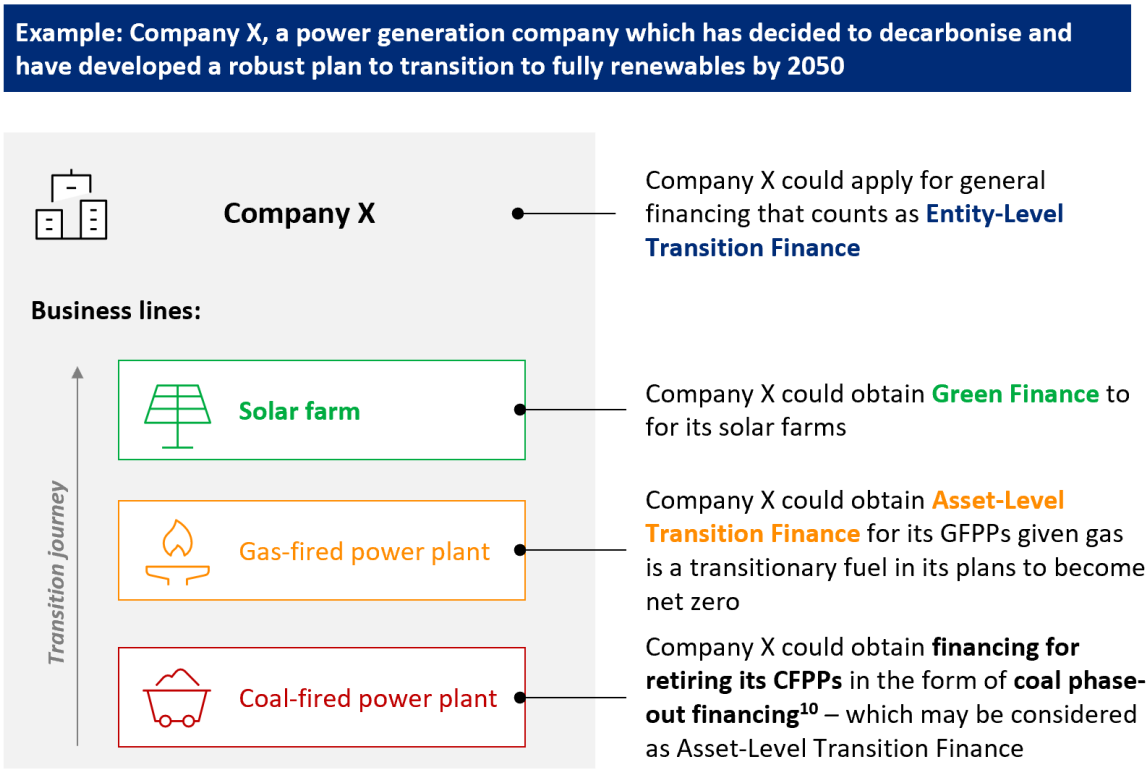
Sustainable Finance (activities), or within technology lists and roadmaps published by reputable agencies such as the Japan's Green Transformation (GX) Sectoral Technology Roadmap (technology)[9].

3. Entity-level Transition Finance

Entity-level Transition Finance is general-use finance provided to entities undergoing ambitious and credible transitions that are aligned with the Paris agreement. An example of this is a power generation company with a decarbonisation goal to be net zero by 2050 as well as credible plans to reach that which include ambitious interim targets for 2030 (see **Exhibit 3**).

Entity-level Transition Finance is used to support the receiving entity to transition as a whole according to its transition plan ('general financing'), as opposed to being ring-fenced towards specific assets or activities (commonly referred to as 'use of proceeds financing'). This application of Transition Finance is the focus of the ATFG, which already established three tiers of transitioning entities in its first version. The intention is that Entity-level Transition Finance could be granted to entities in these three tiers. Please refer to **Section 4** for details on ATFG credibility assessment elements and transition tiers.

Exhibit 3: illustration of different applications of Green and Transition Finance for a power generation company



How market participants have used Asset-level and Entity-level Transition Finance

Financial institutions have used both types of Transition Finance to meet their sustainability targets. For Asset-level Transition Finance, some financiers have their own list of transition activities or assets, developed

[9]Japan Ministry of Economy, Trade and Industry. Roadmap for Promoting Transition Finance. March 2023.

[10] Coal phase-out financing refers to financing that is provided to support the gradual shutting-down of processes that rely on coal combustion, such as coal-fired electricity generation, with the aim of reducing greenhouse gas emissions. Coal phase-out is recognised as an activity that may be eligible to receive Asset-level Transition Finance under the ASEAN Taxonomy.

by referencing existing Taxonomies and/or technology lists but also overlayed with their own portfolio strategy. Similarly, financial institutions are also extending finance to entities who are credibly "transitioning" to help them implement their transition plans. Financial institutions are identifying eligible entities according to their own transition frameworks or by assessing them against published guidance such as those from ICMA or the ATFG.

For Asset-level Transition Finance, there is a growing trend of transition-specific instruments in more developed regions e.g., Japan's Climate Transition Bond[11]. Penetration of such instruments in ASEAN is still limited, with entities still more focused on obtaining financing through more conventional products such as green bonds and loans, or sustainability-linked bonds and loans. Further illustrations on the applications of Green / Transition Finance are provided in **Appendix B**.

1.2. What is the Role of this Guidance?

The intention in developing transition finance guidance is to:

- **Accelerate the efforts of financial institutions** to direct finance to transitioning companies, by standardising which companies should be the focus of such efforts.
- Create incentives for **real economy companies to develop more ambitious and credible transition plans**, through guidance that link those plans to superior financing cost and availability.

Whilst clear guidance on what constitutes for a credible transition is intended to be useful for all financial instruments, this is particularly important in capital markets where secondary market trading requires a minimum degree of consistency in principles across similar instruments.

Therefore, in the ASEAN context, this guidance aims to:

- Define principles by which stakeholders may assess their or another company's transition credibility at an entity level as the basis for financing.
- Identify and provide guidance where applicable on how to make use of relevant climate-oriented resources to facilitate transition planning and disclosure, including the ASEAN Taxonomy for Sustainable Finance.

To be effective, this guidance needs to "clear the market". That is:

- **Guidance needs to satisfy the demands of investors**. Investors with a mandate to support the transition and justify their investments to end investors need sufficiently robust principles that fit with their objectives. Many of these institutions invest in multiple markets across and outside ASEAN, and thus require coherence with global principles and scientific robustness. Guidance that fail to meet this bar will fail to attract capital.
- Guidance needs to be **attainable for issuers in ASEAN.** If guidance is set impossibly high, then there will be no supply of instruments for capital, nor will investors be able to meaningfully contribute to the global transition. There is a need to provide guidance that is aspirational yet meaningfully encourages progress – i.e., recommended principles may currently only be achieved by climate leaders, but is achievable for a wider set of transitioning companies as capabilities evolve.
- Investors are adopting different standards when approaching transitioning companies, whilst there is also a range of sophistication in issuer transition plans. This guidance hopes to address that full range, providing a means by which this range of investors can support the range of transitioning issuers. Issuers

[11] Japan Ministry of Finance. Japan Climate Transition Bond Framework. November 2023

looking for the widest array of financing will need to meet the highest standards, which will also mean remaining abreast of and compliant with global standards in addition to this ASEAN guidance.

- Both investors and issuers recognise that different parts of the world will transition at different times and paces, and that this range of regional differences is consistent with a global move to net zero emissions. A key objective in developing guidance at the ASEAN level is to define principles that reflect this, and explain how this can ensure a meaningful amount of capital can go to a meaningful number of issuers.

These principles have been developed based on:

- Review of existing transition finance guidelines, other relevant initiatives, and tools (see **Section 3**)
- Analysis of the current state of the ASEAN market (see **Appendix C**)
  - Survey of issuers' transition plans in ASEAN[12].
  - Interviews with several significant investors in the ASEAN region.

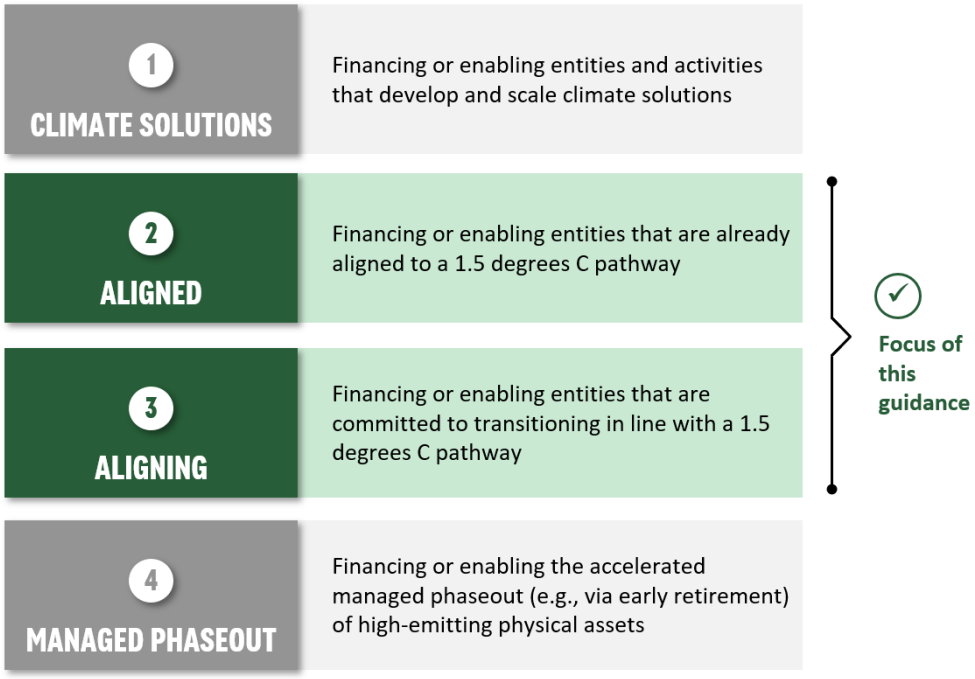
[12] Survey was conducted in Q3 2024 covering 94 ASEAN corporations across different ASEAN countries and sectors.

2. Scope

This guidance addresses how an entity may assess and/or demonstrate a credible transition

Transition is defined by the collective progress of the world from its current state of emissions to decarbonise in line with the objectives of the Paris Agreement. With reference to the Glasgow Financial Alliance for Net Zero (GFANZ) transition financing framework (see **Exhibit 4**), Transition Finance can be segmented into four key financing strategies. All four opportunities have an important role in facilitating transition activity in the real economy. "Climate solutions" enables the scaling of "green" activities, while "Managed phaseout" enables legacy "brown" activities to be down-scaled as is appropriate. Between both extremes, companies looking to credibly decarbonise will require financing to facilitate their transition and may fall in the "Aligned" and "Aligning" categories.

Exhibit 4: GFANZ's four key financing strategies for net-zero transition planning[13]



This guidance aims to address entity-level opportunities that facilitate real economy companies' transition to net zero in ASEAN by building upon the two relevant categories of Aligned and Aligning from GFANZ' four key transition financing strategies. While transition is fundamentally defined by progress, it is highly context specific and market perspectives can differ on what this means for the required or expected speed of entities' decarbonisation through to their net zero year (i.e., also referred to as decarbonisation pathways or trajectories). Establishing a common set of principles of a credible transition will provide ASEAN companies with clarity on how to chart a robust market-accepted decarbonisation trajectory, particularly for the less climate mature and/or those in operating in hard-to-abate sectors with less visibility on their decarbonisation journey.

[13] Glasgow Financial Alliance for Net Zero (GFANZ). Scaling Transition Finance and Real-economy Decarbonization. December 2023.

Climate solutions and managed phaseout are broadly covered only where they are incorporated within ASEAN companies' transition targets and strategies. They tend to be more straightforward on evaluation, given clearly defined activity- or asset-specific parameters and targets, and are robustly covered by existing regional and/or international standards and tools. For more guidance on these two categories (non-exhaustive), users may refer to:

- Climate solutions:
  - Regional: ASEAN Green Bonds Standards[14], ASEAN Taxonomy for Sustainable Finance Version 3[15]
  - International: ICMA Green Bond Principles[16], LMA Green Loan Principles[17], CBI Climate Bond Standards[18]
- Managed phaseout:
  - Regional: GFANZ Financing the Managed Phaseout of Coal-Fired Power Plants in Asia Pacific[19], ASEAN Taxonomy For Sustainable Finance Version 3[20], Singapore-Asia Taxonomy for Sustainable Finance[21], Indonesia Taxonomy for Sustainable Finance[22]
  - International: GFANZ The Managed Phaseout of High-emitting Assets[23]

This guidance should also be interpreted in the context of:

Climate change mitigation. While this guidance broadly outlines how climate change mitigation should be evaluated in the context of a just transition (e.g., socio-economic factors, biodiversity, other priorities aligned with the United Nations Sustainable Development Goals), these factors are not the focus and will require further consideration beyond this guidance.

All financial instruments. The guidance focuses on how the transition credibility of real economy companies can be assessed, which can be interpreted in the context of any financing instrument where stakeholders may incorporate additional instrument-specific requirements as needed.

Such instruments include:

- Debt instruments:
  - Use-of-proceeds instruments e.g., green bonds or loans
  - General corporate purpose instruments e.g., sustainability-linked bonds or loans
- Equity and equity-related instruments: e.g., private equity funds, venture capital funds and mezzanine financing
- Other financial instruments that credibly contribute to the overall climate transition objective e.g., asset-backed securities, real estate investment trusts, mutual funds, exchange traded funds (ETFs), internally managed funds and derivatives

[14] ASEAN Capital Market Forum (ACMF). Green Bond Standards. October 2018.
[15] ASEAN Taxonomy Board. ASEAN Taxonomy for Sustainable Finance version 3. April 2024.
[16] The International Capital Market Association (ICMA). Green Bond Principles. June 2021.
[17] The Loan Market Association (LMA). Green Loan Principles. February 2023.
[18] The Climate Bond Initiative (CBI). Climate Bond Standards. April 2023.
[19] The Glasgow Financial Alliance for Net Zero (GFANZ). Financing the Managed Phaseout of Coal-Fired Power Plants in Asia Pacific. June 2023.
[20] ASEAN Taxonomy Board. ASEAN Taxonomy for Sustainable Finance version 3. April 2024.
[21] Monetary Authority of Singapore. Singapore-Asia Taxonomy for Sustainable Finance. December 2023.
[22] Indonesia Financial Services Authority. Indonesia Taxonomy for Sustainable Finance. February 2024.
[23] The Glasgow Financial Alliance for Net Zero (GFANZ). The Managed Phaseout of High-emitting Assets. June 2022.

ASEAN. The company under assessment and financing instruments must have either a geographical or economic connection to ASEAN, otherwise:

- For use-of-proceeds financing instruments, eligible activities or projects must be located in ASEAN
- For general corporate financing, equity or other instruments, this guidance should be used to inform transition targets, strategies or activity in ASEAN, although the principles may also be considered for activities outside of ASEAN for entities with overseas operations

3. Review of Existing Guidance

3.1. Transition Finance Guidelines

This document aims to provide a simplified and practical approach for stakeholders to assess their or another company's transition credibility in the context of ASEAN that is interoperable with but also addresses the limitations of existing guidance. This section presents a review of existing international and regional guidelines that serves as the basis for this document – in particular when assessing the qualitative elements that make a transition plan credible, where this guidance strives for maximum interoperability. This is not intended as an exhaustive review of all transition finance guidelines; this analysis focuses on a selection of guidelines developed by international or leading climate organisations as well as national or regional bodies.

Exhibit 5: Overview of transition finance frameworks[24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35]

Geographic focus	Framework	Organisation	Target audience	Type of financing instruments covered	Publication date
International	**Transition Finance for Transforming Companies**	Climate Bond Initiative (CBI)	Issuers	• Use-of-proceeds instruments • Sustainability-linked bonds	September 2022
International	**Climate Transition Handbook**	International Capital Market Association (ICMA)	Issuers	• Use-of-proceeds instruments • General purpose sustainability-linked instruments	June 2023
International	**NZBA Transition Finance Guide**	Net-Zero Banking Alliance (NZBA)	Investors (banks)	• Use-of-proceeds instruments • General corporate purpose instruments	October 2022
International	**2023 G20 Sustainable Finance Report Volume I & II**	The Group of Twenty (G20)	Investors	• Debt instruments: use-of-proceeds green or transition bonds or loans,	October 2023

[24] Climate Bonds Initiative (CBI). Transition Finance for Transforming Companies. September 2022.
[25] International Capital Market Association (ICMA). Climate Transition Finance Handbook. June 2023.
[26] Net Zero Banking Alliance (NZBA). NZBA Transition Finance Guide. October 2022.
[27] G20. G20 Sustainable Finance Report 2023. October 2023.
[28] OECD. OECD Guidance on Transition Finance: Ensuring Credibility of Corporate Climate Transition Plans. 2022.
[29] Glasgow Financial Alliance for Net Zero (GFANZ). Expectations for Real-economy Transition Plans. September 2022.
[30] Asia Transition (ATF) Study Group. Asia Transition Finance Guidelines. September 2022.
[31] European Commission. Commission recommendation on facilitating finance for the transition to a sustainable economy. June 2023.
[32] The United States Department of the Treasury. Principles for Net-Zero Financing & Investment. September 2023
[33] Transition Plan Taskforce. Transition Plan Taskforce Disclosure Framework. October 2023.
[34] Financial Services Agency; Ministry of Economy, Trade and Industry; and Ministry of the Environment, Japan. Basic Guidelines on Climate Transition Finance. May 2021.
[35] Financial Services Agency; Ministry of Economy, Trade and Industry; and Ministry of the Environment, Japan. Japan Climate Transition Bond Framework. November 2023.

Geographic focus	Framework	Organisation	Target audience	Type of financing instruments covered	Publication date
				sustainability-linked loans or bonds, etc. • Equity-related instruments: transition-focused buyout funds, venture capital funds, and mezzanine financing, etc. • Risk mitigation products: insurance, guarantee, credit enhancement products, etc. • Others	
International	**Guidance on Transition Finance**	The Organisation for Economic Co-operation and Development (OECD)	Issuers and investors	• General access to financing required for issuers' transition (including loans, bonds and equity)	October 2022
International	**Expectations for Real-economy Transition Plans**	The Glasgow Financial Alliance for Net Zero (GFANZ)	Issuers	General access to financing required for issuers' transition (including loans, bonds and equity)	September 2022
Regional (Asia)	**Asia Transition Finance Guidelines**	Asia Transition Finance Study Group	Investors	General access to financing required for issuers' transition (including loans, bonds and equity)	September 2022
Regional (EU)	**Commission recommendation on facilitating finance for the transition to a sustainable economy**	European Commission	Issuers and investors	• Green or other sustainability loans and bonds • Equity financing and specialised lending	June 2023
Regional (US)	**Principles for Net Zero Financing & Investment**	The United States Department of the Treasury	Investors	General access to financing required for issuers' transition (including loans, bonds and equity)	September 2023
Regional (UK)	**Transition Plan Taskforce Disclosure Framework** Note: As of June 2024, IFRS	Transition Plan Taskforce (TPT)	Issuers	General access to financing required for issuers' transition (including loans, bonds and equity)	October 2023

Geographic focus	Framework	Organisation	Target audience	Type of financing instruments covered	Publication date
	Foundation will assume responsibility for disclosure-specific materials developed by TPT, with aim to publish said materials in IFRS Sustainability website.				
Regional (Japan)	**Basic Guidelines on Climate Transition Finance**	Financial Services Agency; Ministry of Economy, Trade and Industry; and Ministry of the Environment, Japan	Issuers and investors	Use-of-proceeds instruments General corporate purpose instruments	May 2021

3.1.1. Overall Evaluation

The six international guidelines are robust and widely accepted by market stakeholders. Collectively, existing transition finance guidelines provide a comprehensive overview of what makes a transition credible that is collectively representative of the perspectives of leading climate organisations and regional or national bodies. Although many of these guidelines have only been published in recent years, many market stakeholders have already aligned to or are actively incorporating one or several of these approaches into their assessment of transition credibility.

However, ASEAN companies may find it challenging to navigate the diversity of existing international guidelines and interpret broad principles in their local contexts. Although most of these guidelines are largely interoperable and consistent, they may differ in how the recommendations are framed, their constituent elements, and their level of specificity. In the absence of a single clear market standard, entities will either need to identify consensus and best practices across existing guidelines and frameworks or prioritise one guideline to align with. The broad-based nature of guidance targeted at an international audience may also pose a challenge in interpretation in the ASEAN context, especially where it relates to applicable resources or tools. This can be relatively onerous and prohibitive for companies' transition progress, particularly for those earlier in their climate journey.

This document therefore, serves an important function in synthesising key principles from robust existing guidelines to provide interoperable and consistent guidance for ASEAN companies. The intention is not to redevelop existing market-accepted guidelines, but to distil commonalities and incorporate more specific guidance where relevant in ASEAN. Regional guidelines provide a useful reference on how to incorporate regional perspectives and contexts in guidance for transition finance, such as in the identification of suitable transition pathways. Specifically, the Asia Transition Finance Guidelines was designed to provide investors with greater clarity on evaluating transition finance opportunities in Asia, and provides targeted guidance on how regional tools like taxonomies and roadmaps may facilitate transition planning. This guidance references these regional guidelines to identify areas where more contextualised guidance is beneficial and

builds upon the Asia Transition Finance Guidelines in developing complementary practical guidance for real economy companies in ASEAN.

While existing guidelines define a highly robust set of requirements for companies to be considered as credibly transitioning, this sets a high bar that many real economy companies may not currently be able to meet. While this guidance will synthesise the full set of criteria expected of a credible transition by the market, there is merit in considering different tiers of qualifying companies that allow those meeting most requirements but not yet all elements to be recognised as transitioning for a period of time. In so doing, this has the potential to facilitate more inclusive and greater progress towards regional decarbonisation to net zero by enabling transitioning ASEAN companies that may fall short of only select criteria to access transition financing. This does not mean that ASEAN companies should aim at a lower standard or level of ambition – those seeking the widest and most advantageous financing will need to meet all of these standards. However, in the near term, the climate transition is best served by investors remaining supportive of – and invested in – companies as they work on their plans and bring them up to global standards.

3.1.2. Common Elements of a Credible Transition

Broadly, existing guidance defines a credible transition by two overarching elements:

- **Climate Ambition:** Presence of a net zero target and sufficiently ambitious decarbonisation trajectory aligned with the objectives of the Paris Agreement to limit the rise of average global temperature with no to low overshoot to 1.5°C, or at least well below 2°C
- **Robustness of Ability to Deliver**: Implementation strategy that enables tangible progress towards achieving climate ambitions, underpinned by robust consistent disclosure and monitoring

These elements encompass a spectrum of recommended components that collectively represent a credible transition. Existing guidance encourages entities to achieve all components but allow for flexibility; entities should be evaluated on their best efforts under current circumstances, but will also be expected to demonstrate progress as capabilities and conditions (e.g., regulatory environment) evolve.

Exhibit 6: Comparison of the ASEAN Transition Finance Guidance with international transition finance frameworks

Note: Elements covered by international transition finance frameworks highlighted in green; elements with limited coverage in white

				Element mapping to international transition finance frameworks					
Element	**Sub-element**		**Description**	**CBI**	**ICMA**	**NZBA**	**G20**	**OECD**	**GFANZ**
Climate Ambition	Current state assessment		Measure and disclose material sources of emissions						
	Transition pathway		Select sectoral science-based decarbonisation pathway aligned with Paris Agreement						
	Transition targets		Define company-specific targets over the short, medium and long term to align with selected transition pathway						
Robustness of Ability to Deliver	Implementation strategy	Action plan	Translate transition targets into concrete short, medium and long term actions						
		Capital allocation plan	Establish financial requirements necessary for the delivery of action plan						
		Risk assessment and mitigation	Assess climate risks and opportunities, and delivery risks associated with implementation strategy						
		Ongoing monitoring	Develop capabilities to track and report progress of implementation strategy						
		Governance	Develop mechanisms to oversee and support the execution of implementation strategy						
	Disclosure		Disclose publicly details of climate ambition and implementation strategy						
	Independent verification		Obtain independent verification for publicly disclosed details						
	Just transition considerations		Ensure no significant harm to other environmental and social objectives						

3.2. Other Relevant Guidelines and Initiatives

Additionally, there exists numerous other existing climate-oriented frameworks, methodologies and guidance, which has been illustrated in greater detail in the GFANZ Expectations for Real-economy Transition Plans paper. These guidelines and initiatives aim to comprehensively detail the market-accepted recommended approach for one of the following main categories respectively: disclosure and data collection, target setting and transition plan development. Stakeholders may refer to these initiatives to access more detailed guidance to meaningfully facilitate their efforts in assessing transition credibility.

Exhibit 7: Summary of global climate and transition initiatives[36]

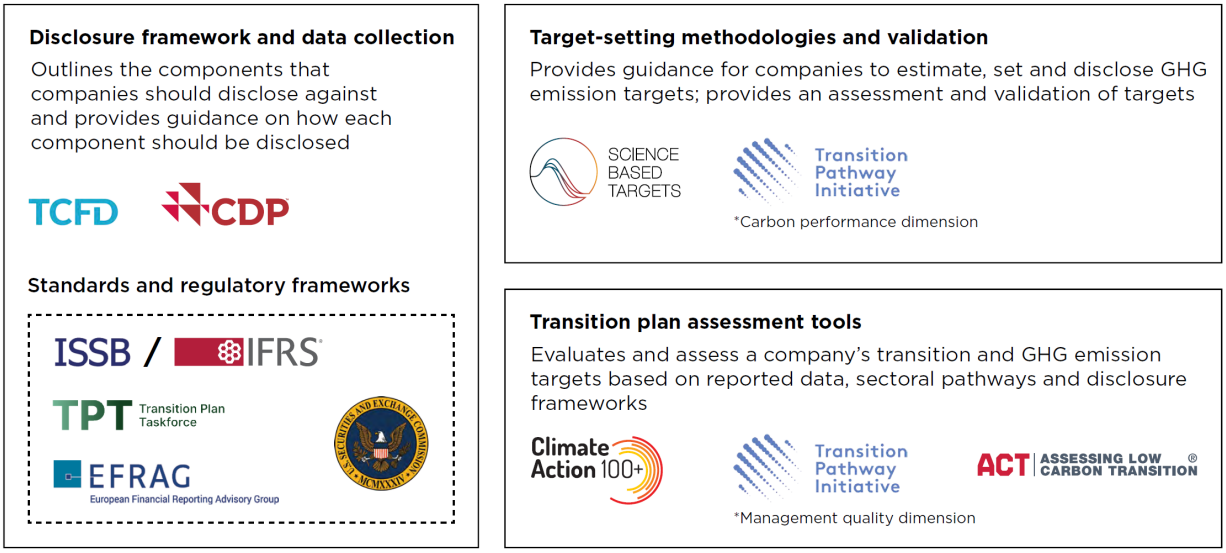


Exhibit 8: Deep-dive into disclosure frameworks

Multiple disclosure standards exist with differing focus areas, which can be challenging for capital market participants to navigate. In response to this global market concern, the International Sustainability Standards Board (ISSB) was formed to address this issue of multiplicity. In June 2023, the ISSB introduced the International Financial Reporting Standards (IFRS) S1 and S2 to create a global baseline for sustainability reporting that enables investors to be informed in their decision making[37]. These standards have become the leading disclosure standard for annual reporting periods beginning on or after 1 January 2024[38], backed by multiple international institutions such as the G20, the Financial Stability Board and the International Organisation of Securities Commissions (IOSCO), as well as leaders in the business and investor community. Furthermore, the ISSB has announced in June 2024 that it intends to assume responsibility for the disclosure-specific materials developed by the UK's Transition Plan Taskforce (TPT), thereby advancing the standardisation of the sustainability reporting landscape. While TPT may not necessarily change the established requirements in IFRS S2, the materials will be leveraged to develop educational content in the shorter term, and support the enhancement of application guidance within IFRS S2 in the longer term as deemed applicable.[39]

[36] Glasgow Financial Alliance for Net Zero (GFANZ). Expectations for Real-economy Transition Plans. September 2022.
[37] International Financial Reporting Standards (IFRS). ISSB issues inaugural global sustainability disclosure standards. June 2023.
[38] International Financial Reporting Standards (IFRS). General Sustainability-related Disclosures. 2023.
[39] ISSB Announcement. ISSB delivers further harmonisation of the sustainability disclosure landscape as it embarks on new work plan. June 2024.

IFRS S1 and S2 focus on how companies may assess their sustainability and climate risks and opportunities, as well as communicate the assessment results to their investors[40,41]. This guidance has undergone an extensive consultation process and has built upon well-recognised climate disclosure standards that have been widely adopted by market stakeholders, including Task Force on Climate-Related Financial Disclosures (TCFD) and Sustainability Accounting Standards Board (SASB).

Broadly, IFRS S1 addresses broad-based sustainability risks and opportunities and forms the underlying principles for IFRS S2, which emphasises climate-specific risks and opportunities and is the key standard informing transition-related assessments:

1. **International Financial Reporting Standards (IFRS) S1 General Requirements for Disclosure of Sustainability-related Financial Information**
    - A. **Overview:**
        - i. Sets out general requirements for a company to disclose information about its sustainability-related risks and opportunities that is useful to investors
        - ii. Develops strong conceptual foundations, which form the basis of other sustainability-related disclosure standards such as IFRS S2
    - B. **Suggested use cases (non-exhaustive):**
        - i. Perform assessments of broad-based sustainability risks and opportunities
        - ii. Prepare disclosure materials on their assessments to investors
2. **International Financial Reporting Standards (IFRS) S2 Climate-related Disclosures**
    - A. **Overview:**
        - i. Sets out requirements for a company to disclose information about its climate-related risks and opportunities, while building on the requirements described in IFRS S1
    - B. **Suggested use cases (non-exhaustive):**
        - i. Perform assessments of climate-specific risks and opportunities, which forms the basis of transition credibility
        - ii. Prepare disclosure materials on their assessments to investors, which can help highlight key information relevant for investors' decision-making on transition finance

Companies can refer to **Section 4** for more details on how the IFRS S2 can be applied in risk assessments and disclosures. A brief overview of the 4 structural elements of IFRS S2 is provided below, which broadly aims to allow the users of general purpose financial reports to understand:

1. **Governance**: Processes, controls and procedures an entity uses to monitor, manage and oversee climate-related risks and opportunities.
2. **Strategy:** Entity's approach to managing climate-related risks and opportunities, including the implications of these factors on its strategic decision-making, and information about its transition plan.
3. **Risk Management:** Processes to identify, assess, prioritise and monitor climate-related risks and opportunities, including whether and how those processes are integrated into and inform the entity's overall risk management process.
4. **Metrics and Target:** Performance tracking in relation to management of climate-related risks and opportunities, including progress towards any climate-related targets it has set and any targets it is required to meet by law or regulation.

[40] Ibid.

[41] International Financial Reporting Standards (IFRS). Project Summary. June 2023.

ESRS-ISSB Standards Interoperability Guidance[42]

In May 2024, the European Financial Reporting Advisory Group (EFRAG) and the International Sustainability Standards Board (ISSB) jointly published an interoperability guidance on climate-related disclosures for sustainability reporting to help entities improve the efficiency of reporting under both the ISSB Standards and the European Sustainability Reporting Standards (ESRS)[43]. The guidance aims to achieve a high degree of alignment of the respective standards specifically on the topic of climate-related disclosures, which relate to the requirements of IFRS S2 and ESRS E1. It also describes the alignment of general requirements including key concepts such as materiality, presentation and disclosures for sustainability topics other than climate; and provides information about the alignment of climate disclosures and what a company starting with either set of standards needs to know to enable compliance with both sets of standards.

3.3. Other Tools: Taxonomies, Technology Roadmaps and Technology Lists

Companies may also refer to supplementary tools in developing transition targets or strategies, such as taxonomies, technology roadmaps and technology lists. These tools establish common criteria to identify activities, assets or technologies that are aligned with the needs of a decarbonising world presently and/or in the near, medium and long-term.

Exhibit 9: Definition of taxonomies, technology roadmaps and technology lists[44]

Tools	Description	Examples of available ASEAN tools
Taxonomies	A taxonomy is a classification system that provides businesses with a common language and the means to identify whether or the extent to which a given economic activity is environmentally sustainable	ASEAN, Singapore, Thailand, Indonesia, Malaysia and Philippines Taxonomies
Technology roadmaps	A technology roadmap outlines the technologies that will be necessary to get specific industry sectors aligned with the Paris Agreement, showing technology ready for use by year	Technology roadmaps by the Singapore and Malaysian governments
Technology lists	A technology list provides a reference point when assessing potential transition technologies until technology roadmaps or taxonomies with thresholds and eligible activity lists are developed	Technology List and Perspectives for Transition Finance in Asia by Economic Research Institute for ASEAN and East Asia

These tools complement existing principles-based guidelines by presenting ASEAN companies with practical and sector-specific resources to facilitate decision-making and planning. For example, companies may refer to one or more of these tools to translate the following principles into action:

1. **Point-in-time current state assessment**: Companies may use a taxonomy or technology list to evaluate if current or near-term planned activities are presently considered transition-aligned for any activity-

[42] European Financial Reporting Advisory Group (EFRAG), International Sustainability Standards Board (ISSB). ESRS-ISSB Standards Interoperability Guidance. May 2024.

[43] European Commission. European Sustainability Reporting Standard. December 2023.

[44] Description of tools from Asia Transition (ATF) Study Group. Asia Transition Finance Guidelines. September 2022.

specific use of proceeds financing; users may refer to the Asia Transition Finance Guidelines for more details on how these tools meaningfully facilitate assessment for use of proceeds financing[45].

2. **Forward-looking perspective on transition-aligned activities per time period**
   A. **Target setting**: Companies can develop near-, mid- and long-term targets for specific decarbonisation activities by referencing technology roadmaps that illustrate when technologies may become commercially viable and how effective they will be, or referencing how the quantitative thresholds of taxonomies change over time.
   B. **Action plan development**: Similarly, companies may develop and refine their action plan to achieve their emissions targets by referring to the available decarbonisation activities from all tools in the near-term and technology roadmaps in the longer term.
   C. **Risk assessment and mitigation**: Companies can evaluate their entity-level transition risks and risk of emissions lock-in based on how long their current or future activities will remain transition-aligned per the taxonomy or technology roadmaps, which is particularly relevant for entities in hard-to-abate sectors dependent on interim transition technologies.

Companies should exercise discretion in identifying the tool best suited for their business models and objectives, given that tools can vary by:

- **Geographic specificity**: As with existing guidelines and transition pathways, these tools often have global, regional and national versions. In many cases, regional or national tools are developed to be as interoperable as possible but are adapted for specific localised constraints and priorities. For instance, national taxonomies often have provisions or specific focus areas to support local companies in progressing towards national targets or strategic interests and may vary in degree to which they are mandatory. Issuers using their plans to attract financing should consider the location of relevant investors – for example, those seeking EU funding will likely need to adhere to EU as well as local taxonomies.
- **Level of detail**: Many tools intended for ASEAN are in their early stages or are under development, and may not be sufficiently comprehensive or informative. Limitations include limited coverage of relevant sectors or the lack of quantitative science-based thresholds for activity / technology classification (i.e., activity evaluation is based on only qualitative principles). Entities should identify tools that align with their needs and enable them to build climate capabilities; this guidance aligns with the Asia Transition Finance Guidelines in that science-based tools with specific quantitative thresholds or clear definitions of transition-aligned activities are broadly perceived as more credible.

Exhibit 10 illustrates the available taxonomies for ASEAN by select points of differentiation, aligned with and building upon the Asia Transition Finance Guidelines[46] to capture additional nuances.

[45] Ibid.

[46] Asia Transition (ATF) Study Group. Asia Transition Finance Guidelines. September 2022.

Exhibit 10: Overview of existing regional and national taxonomies in ASEAN[47]

	ASEAN[48]	Singapore[49]	Thailand[50]	Indonesia[51]	Malaysia[52]	Malaysia[53]	Philippines[54]
Taxonomy	ASEAN Taxonomy Version 3	Singapore-Asia Taxonomy	Thailand Taxonomy Phase 1	Indonesia Taxonomy for Sustainable Finance	Principles-Based Sustainable and Responsible Investment Taxonomy	Climate Change and Principle-based Taxonomy	Philippine Sustainable Finance Taxonomy Guidelines
Date of publication / latest update	Apr-2024	Dec-2023	Jun-2023	Feb-2024	Dec-2022	April 2021	Feb-2024
List of eligible activities *Whether the taxonomy includes a list of green or transition-aligned activities*	☑	☑	☑	☑	☒	☒	☑
Quantitative thresholds *Whether eligible activities may be identified via quantitative thresholds (e.g., emission intensity, energy consumption)*	☑ 3 sectors, Energy, Construction & Real Estate, and Transport	☑ 8 sectors, including Energy, Transport and Buildings	☑ 2 sectors, Energy and Transport	☑ 1 sector, Energy	☒	☒	☒

[47] At the time of writing, all other ASEAN countries have yet to publish a national taxonomy.

[48] The ASEAN Taxonomy Board. ASEAN Taxonomy Version 3. April 2024.

[49] Green Finance Industry Taskforce, convened by the Monetary Authority of Singapore. Singapore-Asia Taxonomy for Sustainable Finance. December 2023.

[50] The Thailand Taxonomy Board. Thailand Taxonomy Phase 1. June 2023.

[51] Indonesia Financial Services Authority. Indonesia Taxonomy for Sustainable Finance. February 2024.

[52] Securities Commission Malaysia. Principles-Based Sustainable and Responsible Investment Taxonomy. December 2022.

[53] Bank Negara Malaysia. Climate Change and Principle-based Taxonomy. April 2021.

[54] Financial Sector Forum (FSF), a voluntary interagency body comprised of the Bangko Sentral ng Pilipinas (BSP), Securities and Exchange Commission (SEC), Insurance Commission (IC), and the Philippine Deposit Insurance Corporation (PDIC). Philippine Sustainable Finance Taxonomy Guidelines. February 2024.

Transition pathway ***Type of transition pathways referenced in in setting quantitative thresholds***	**Country/ sectoral industry body targets**	☑	☑	☑	☒	☒	☒
	Science-based models	☑	☑	☑	☒	☒	☒

Specifically, this guidance is intended to complement the ASEAN Taxonomy. The taxonomy sets requirements to qualify for Green and Amber tiers of sustainable finance, and in the Plus Standard has defined quantitative thresholds with retirement dates for Amber tiers that creates a ratcheting of requirements over time. This guidance builds on that by creating an approach to assess the forward-looking plans of companies and facilitate investor support for those companies. Any company may in principle qualify for transition finance – the current position is not a restriction, only the forward-looking plan. In other words, to be considered for transition finance, companies will need to demonstrate how they intend to transition their operations and use of technologies through the tiers defined in the ASEAN Taxonomy at a speed that is consistent with a science-based pathway.

Exhibit 11: ASEAN Taxonomy and how it can be used

The ASEAN Taxonomy for Sustainable Finance Version 3 (or ASEAN Taxonomy for short) uses the Plus Standard (PS) as an advanced assessment approach, which enables climate change mitigation activities to be categorised into tiers based on quantitative and qualitative Technical Screening Criteria (TSC) informed by a reference pathway, should they meet all other environmental objectives and essential criteria. In the third version of the taxonomy, the ASEAN Taxonomy Board added technical screening criteria for two more sectors (Construction & Real Estate and Transportation & Storage) in addition to the Energy sector which had been defined in the second version. There are three qualifying tiers at present (Green, Amber Tier 2, and Amber Tier 3), with Amber tiers reflecting transition-aligned activities. Amber tiers will be sunset and relevant thresholds revised down over time to reflect the downward-sloping trajectory of the underlying transition pathway.

To illustrate, an ASEAN power generation company may find the ASEAN Taxonomy helpful in:

- **Current state assessment:** Companies can use current tier thresholds to identify whether their power generation activities are presently transition-aligned; if entities' assets perform on par with industry-average emission factors[55] until 2030, this broadly entails the following:

Tiers (2023-2030)	Qualifying power generation activity type
Red	Coal without CCUS
Amber Tier 3	Average gas
Amber Tier 2	Best-in-class gas, biomass
Green	Most renewables

- **Target setting and action plan development:** For most sectors, the ASEAN Taxonomy has yet to publish precisely how the tier thresholds will evolve. Nonetheless, companies may consider how the published tier sunsetting periods will affect whether their existing assets will remain transition-aligned through time. For example, given that Amber Tier 3 for the Energy sector is currently expected to be sunset by 2030, companies should consider how this might affect any plans to develop new gas power plants after 2030 and the implications on its continued financing.
- **Risk assessment and mitigation:** With the understanding of how the Taxonomy will tighten its thresholds at fixed time intervals, companies may also assess the degree to which their current or planned assets will represent emissions lock-in throughout their lifetime. For example, in the absence of any retrofitting

[55] Intergovernmental Panel on Climate Change (IPCC). Annex II: Metrics & Methodology. In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. 2014.

with abatement technologies, a gas plant that is newly built now will remain similarly emissions intensive over the next 30 years. While the gas plant is currently Amber Tier 3 and aligned with current transition needs of the power generation sector, by the end of its operational lifetime the asset will not be transition-aligned. Companies should consider the lifetimes of their assets together with the sunsetting horizons defined in the ASEAN Taxonomy's Amber tier.

4. Guidance on Assessing Transition Credibility for Financing

4.1. Summary

Purpose

In the ASEAN context, this guidance is designed to:

- Define principles by which stakeholders may assess their or another company's transition credibility at an entity level as the basis for financing.
- Identify and provide guidance where applicable on how to make use of relevant climate-oriented resources to facilitate transition planning and disclosure, including the ASEAN Taxonomy.

Overarching guidance characteristics

1. **Voluntary**: This guidance is not binding by nature, and is designed to be interpreted in the user's respective context and in conjunction with existing frameworks (e.g., national- or company-level guidelines).
2. **Interoperable**: The following principles closely references robust existing guidelines for interoperability – this guidance does not aim to redefine principles that have already been accepted by the market.
3. **Practicality**: In recognition of the challenge of navigating the diversity of existing tools and resources, this section incorporates practical guidance where relevant on how to identify and make use of the most pertinent ones, such as taxonomies and reference pathways.
4. **Flexible**: Stakeholders are encouraged to use discretion in the application of these principles, given that many ASEAN companies may not presently have climate maturity and sophistication needed to achieve all criteria and the challenges in data availability and accessibility in more developing countries.

Approach to assessing transition credibility

A credible transition comprises two main elements: sufficient climate ambition, and robustness of the entity's ability to deliver on said ambition. Building upon international guidance and stakeholder input, this section defines the characteristics of transition credibility accepted by the market, with key principles as follows:

- **Element 1: Climate ambition (Section 4.2)**
  - **Current state assessment (Section 4.2.1)**: Entities must assess all emissions from environmentally material business activity (Scopes 1, 2 as well as Scope 3 where material), which serves as a robust foundation for their forward-looking progress.
  - **Transition pathway (Section 4.2.2)**: Entities should identify a reference pathway that informs the extent of required decarbonisation consistent with the Paris Agreement, based on the following key characteristics: 1) pathway source, 2) geographical granularity, 3) scope of emissions, 4) emissions metric, 5) temperature outcome. In some instances, entities may wish to augment their selected pathway to better reflect the nature of their business. Entities may conduct such augmentation based on the following key variables:

- Scope of emissions: Entities may augment a pathway to ensure the scope of emissions covered is in alignment with the scope of emissions encompassed by their emissions reporting framework.
- Business activities: Entities may augment a pathway to reflect the specific activities and operational profile of their business by ensuring it comprehensively covers all material business activities pertinent to their operations.
- Emissions profile: Entities may augment a pathway to ensure it comprehensively encompasses all material greenhouse gases (GHGs) that are emitted from their business activities.
- Local nuances and geographical coverage: Entities may augment a pathway to more accurately reflect the regional nuances and geographical coverage of their business operations

- **Transition targets (Section 4.2.2.3)**: Entities should set concrete, time-bound targets on how they will align with its transition pathway, where:
  - Absolute emissions targets must show a decarbonisation trajectory equivalent or more ambitious to the reference pathway through to their net zero year.
  - Emission intensity targets must converge with the selected transition pathway by 2050 and in the interim:
    - Companies starting above the pathway should plan to decarbonise in parallel with the reference pathway as a minimum.
    - Companies starting below the pathway should target to remain on or below the pathway.

- **Element 2: Robustness of Ability to Deliver (Section 4.3)**
  - **Implementation strategy (Section 4.3.1):** Entities must clearly demonstrate how they intend to make tangible progress towards achieving their climate ambitions, which includes:
    - Action plan: Detailed roadmap of actions to achieve targets differentiated by near-, mid- and long-term milestones.
    - Capital allocation plan: Financial requirements for execution of the action plan, and how to achieve such financing.
    - Risk assessment and mitigation measures: Robust climate and delivery risk assessment and relevant mitigation strategies.
    - Ongoing monitoring: Processes to track progress against targets and adapt as needed.
    - Governance: Organisational structure and mechanisms to oversee and support the execution of the other elements of the implementation strategy.
  - **Disclosure (Section 4.3.2):** Entities should disclose their performance, targets and progress on an annual basis as a minimum, aligned with existing climate-related disclosure standards such as IFRS S1 and S2.
  - **Independent verification (Section 0):** Entities are encouraged to seek third-party verification on their transition credibility, particularly for those with lower climate maturity.
  - **Just transition considerations (Section 4.3.4):** Entities should assess and account for potential adverse environmental impacts and social considerations that arise from their transition plan.

To be considered as credibly transitioning, entities are encouraged to demonstrate all aforementioned characteristics, and provide clear justification where there are any deviations (e.g., if a specific criterion may not be applicable in their context or for a particular financing instrument).

While these principles are robust and interoperable with existing market-accepted guidance, they focus on establishing the minimum boundaries of what the market is willing to accept as credible and are limited in

their ability to recognise that entities may differ in the degree to which they demonstrate these criteria and still be recognised as credible. To meaningfully represent the differences in market expectations beyond these boundaries and encourage progress of real economy companies in ASEAN, this guidance proposes three tiers representing the differences in approaches of transitioning entities (**Section 4.4**):

1. **Aligned and Aligning – 1.5°C**: Entities that demonstrate sufficient climate ambition that is already aligned or aligning with a science-based 1.5°C trajectory and meet all other criteria of transition credibility.
2. **Aligned and Aligning – Well below 2°C**: Entities that demonstrate sufficient climate ambition that is already aligned or aligning with a science-based well below 2°C trajectory and meet all other criteria of transition credibility.
3. **Progressing**: Entities that demonstrate most but not all elements of ability to deliver and/or a climate ambition that is material but not yet aligned or aligning to well below 2°C, and have committed to addressing any material omissions in the next 2 years.

These tiers are intended to facilitate financing activity by providing a consistent basis for evaluating corporates' transition approaches. **The 1.5°C tier** represents the gold standard for what is globally accepted as a credible transition, consistent with international guidance, while **Well below 2°C** is more reflective of climate ambitions across ASEAN while maintaining the robustness of all other criteria. Additionally, including a **Progressing** tier is designed for companies that meet most but not all criteria of transition credibility, and serves two purposes: facilitating capability development of real economy companies, and directing capital towards the more climate mature even if they may not meet all requirements. The latter reflects evolving investor interest in steering their full portfolio, independent of labels or specific financing instruments, in line with their climate goals.

4.2. Element 1: Climate Ambition

Entities should have a net zero target and sufficiently ambitious decarbonisation trajectory aligned with the objectives of the Paris Agreement to limit the rise of average global temperature with no to low overshoot to 1.5°C, or at least well below 2°C. Where entities deviate from any recommended guidance in the following section, they should provide a clear rationale.

Key principles

- **Current state assessment**
  - Identify and report GHG emissions from environmentally-material parts of the entity's business model.
  - Include all sources of emissions – Scopes 1, 2 as well as 3 where material, from identified business segments.
  - Select and justify emissions metrics to quantify the entity's current state (i.e., use of absolute or intensity).
  - Disclose use and impact of carbon credits, if applicable.
- **Transition pathway**
  - Select level of global warming ambition aligned with the objectives of the Paris Agreement; if it is not well below 2°C aligned as a minimum, provide rationale.
  - Select a reference pathway to inform the decarbonisation trajectory; this should ideally be science-based, and if not then clear rationale should be provided.
  - The chosen reference pathway may be region-specific (i.e. showing the decarbonisation trajectory for a country or set of countries in ASEAN or beyond) – this allows transition plans to take into account the requirements of a just transition whilst remaining consistent with the global goal of limiting warming in line with the Paris Agreement. Where transition plans rely on such regional pathways, they should meet the two aforementioned criteria for transition pathways and be clearly explained.
- **Transition targets**
  - Set targets that demonstrate how the entity will transition from its current state to align with the choice of transition pathway, with the following conditions:
    - Comprehensive coverage of all environmentally-material business segments and their respective sources of emissions, including expected role of carbon credits where relevant.
    - Differentiated by near-term, medium-term and long-term.
    - Relative to the reference pathway, and not compared to the entity's business-as-usual performance.

4.2.1. Current State Assessment

To meaningfully understand what a path towards decarbonisation entails, entities must first develop a robust understanding of where they currently are. Entities should first evaluate the environmentally-material aspects of their business model, which are the activities that are the main drivers of their current and future environmental performance. For the purposes of this guidance, entities may quantify environmental

materiality by greenhouse gas emissions as a key metric[56]. This may be expressed as metric tonnes of CO_2 equivalent (or CO_2e), which requires entities to measure and aggregate the seven constituent greenhouse gases into CO_2 equivalent values. Entities may refer to IFRS S2 on Climate-related Disclosures[57] for more guidance.

All material sources of emissions must be included in an entity's current state assessment, which includes:

- Scope 1: Direct greenhouse gas emissions that occur from entity's operational activity.
- Scope 2: Indirect emissions from purchased or acquired electricity consumed by entity.
- Scope 3: Indirect value chain emissions that are non-negligible in volume and is controlled in part by the entity (including upstream and downstream).
    - The material categories of scope 3 emissions will differ depending on the sector and where the company operates on the value chain (see **Exhibit 12** for an illustration of how material sources of emissions differ by sector and value chain operations).

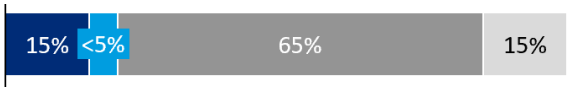
The aim of the ASEAN guidance here is to be consistent with global guidelines in order to maximise interoperability – ASEAN companies should include the full scope of their greenhouse gas emissions consistent with global practices. Where entities may lack in the comprehensiveness of their current state assessment (e.g., Scope 3 emissions not assessed, measurement of only CO_2 but not the other greenhouse gases), entities should commit to a clear action plan and time frame in the near term by which they aim to build their capabilities to do so.

[56] In the broader context of a just transition, environmental materiality should consider the broader scope of socio-environmental impacts on biodiversity, water, people and communities, etc. Refer to Section 5.4.4 for more information on how an entity may incorporate just transition considerations in their approach to climate change mitigation.

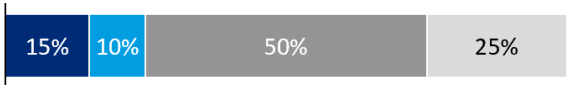
[57] International Financial Reporting Standards (IFRS). IFRS S2. June 2023.

Exhibit 12: Most material sources of emissions by sector

Note: The emissions distribution data is calculated from the available reported emissions performance of the largest companies in ASEAN to CDP (global disclosure database on environmental reporting)[58]. This provides an overview of common sector characteristics and is not intended to be representative of all entities in the sector; this distribution will vary by business model and other operating characteristics.

Sector	Emission distribution Scope 1 Scope 2 Scope 3 - Upstream Scope 3 - Downstream	Most material source(s) of emissions	Value chain type	Relevant emission scope(s)
Power		Combustion of fossil fuels for power generation	Generation	Scope 1
Oil & Gas		Use of end-products (processed crude, refined products, etc.) Emissions from extraction and processing operations or maintenance activities (flaring, methane venting, etc.)	Integrated	Scopes 1 and 3 downstream
Agriculture		Forestry and land use Livestock farming (enteric fermentation, manure management, etc.) Crop cultivation (agriculture residues, fertiliser application, etc.) Post-farmgate activities (processing, transportation, etc.)	Production / processing	Scopes 1 and 3 upstream
Road Transport		Combustion of fuels by vehicles	OEM manufacturing	Scope 3 downstream *(from the perspective of manufacturers of vehicles)*
Aviation		Combustion of fuel by aircrafts	Airlines operators	Scope 1

[58] Data as of October 2023.

Sector	Emission distribution Scope 1 Scope 2 Scope 3 - Upstream Scope 3 - Downstream	Most material source(s) of emissions	Value chain type	Relevant emission scope(s)
Shipping		Combustion of fuel by ship vessels	Ship operators	Scope 1
Real Estate & Construction		Embodied emissions in building material Energy consumption from tenant activity	Real estate owner-operator	Scope 3 (upstream from embodied emissions, downstream from tenant activity)
		Combustion of fuels by machinery and other equipment from on-site activity	Construction	Scope 1
Metals & Mining		Combustion of fuels and purchased energy for mining, processing and other operations (smelting, heating, etc.) Use of commodity end-products (processed metals, minerals, etc.)	Integrated	Scopes 1 and 3
Chemicals		Use of chemical end products (reactants) Combustion of fuels for various chemical processes (heating, etc.) and reactants from chemical reactions and processes	Integrated	Scopes 1 and 3 downstream
Textile		Production of raw materials (cotton, wool, etc.) Combustion of fuels in textile manufacturing (boilers, generators, etc.)	Producers	Scopes 1 and 3 upstream
Paper		Combustion of fuels in paper production (boilers, kilns, etc.) and transportation Land use and deforestation	Producers	Scopes 1 and 3 upstream

Real economy companies may also refer to the GHG Protocol for specific guidance on how to assess their Scope 3 emissions (see **Exhibit 13** for more details).

Exhibit 13: GHG Protocol Guidance on how to assess Scope 3 emissions

The GHG Protocol represents the market-accepted global standard in measuring and managing emissions and has published a series of guidelines on how companies may assess their Scopes 1, 2 and 3 emissions. Entities may refer to the following key publications for robust, detailed guidance:

- Corporate Value Chain (Scope 3) Accounting and Reporting Standard[59].
- Technical Guidance for Calculating Scope 3 Emissions[60].

The measurement of Scope 3 emissions can be challenging, particularly where it requires value chain partners to be comparably sophisticated in their assessment of emissions. Data availability and quality issues in ASEAN also exacerbate the difficulty of comprehensively quantifying emissions that an entity is not directly responsible for, even for the largest and most well-resourced companies. The GHG protocol outlines a series of steps on how companies may accommodate for existing limitations, with the guidance for data collection as an example:

- Evaluate the availability of data for material sources of emissions by primary and secondary sources
  - Primary data includes direct collection of data from value chain partners, which enables more precise and accurate emission measurement but can be costly and challenging to verify.
  - Secondary data refers to the use of industry averages or comparable proxies, which may not be reflective of the company's specific emission profile.
- Prioritise more precise primary data collection for most significant sources of Scope 3 emissions; use secondary data where there are significant data gaps and/or for other sources of Scope 3 emissions.

An entity will also need to select metrics to communicate their baseline performance, and subsequently set targets upon. Greenhouse gas (GHG) emissions is the most used metric and enables comparability within and across sectors. Commonly, this may take the form of:

- Absolute emissions in carbon dioxide equivalent (CO_2e) or carbon dioxide (CO_2), whichever is most representative of sectoral emissions profile.
- Physical-based emission intensity (i.e., emissions divided by a physical activity unit typically specific to the sector).

As a minimum, companies should disclose their absolute emissions and the baseline performance for all metrics that inform target-setting. Companies should clearly justify their choice of metric for target setting (e.g., emission intensity, alternative metrics). To facilitate a comprehensive assessment of the entity's performance within and across sectors, they should also disclose breakdowns by sector, emission scopes and any other meaningful factors of differentiation (e.g., business units, geographic location). They should also specify the coverage of their GHG emissions assessment, such as whether there are any excluded business segments or geographic regions, and their methodology for assessment.

Lastly, on the treatment of carbon credits or offsets, as per the Race to Zero global campaign[61] and consistent with existing guidance from GFANZ and NZBA, companies may use high quality carbon credits only as the last mile measure to address residual emissions after they have fully engaged in all other meaningful and

[59] GHG Protocol. Corporate Value Chain (Scope 3) Accounting and Reporting Standard. n.d.
[60] GHG Protocol. Technical Guidance for Calculating Scope 3 Emissions. 2013.
[61] Race to Zero. Race to Zero Criteria. July 2022.

viable decarbonisation activities. In other words, offsets should not be the first or only strategy of a robust decarbonisation plan. Carbon credits should count only to offset point-in-time emissions, and do not count towards longer-term progress against entities' targets.

Where companies use offsets, they should report gross emissions performance as aligned with ISSB standards. In other words, entities should disclose the impact of any carbon offsets separately from their baseline emissions and share any relevant details that demonstrates the quality of these offsets, and detail how the use of offsets fits into their broader decarbonisation strategy. Companies seeking international finance should also be mindful of evolving attitudes to the role of offsets – companies should prioritise changes in business model over offsets wherever possible to ensure the widest range of financing remains available.

4.2.2. Transition Pathway

As there is no single "right" transition pathway for any entity, it is imperative that entities perform thorough due diligence when selecting a reference pathway to ensure it is reflective of their business. This process entails evaluating the characteristics of various pathways to assess their suitability for the entity's transition plans and decarbonisation goals. Examples of key characteristics of reference pathways that entities should evaluate are as follows:

- **Pathway source**. Reference pathways should ideally be developed under a science-based model that ensures the net outcome is aligned with the collective goal set by the Paris Agreement. Ideally these models start from a global perspective across all sectors which is then broken down across sectors and geographies. This ensures full consistency back to the global carbon budget, and is the approach taken by the likes of the IEA and NGFS. In many sectors, specific countries or industry bodies have also developed alternative pathways that may better reflect the unique constraints and priorities of the country or industrial sector. Such pathways may be acceptable to express the level of transition required of an entity operating within the country or sector, though care should be taken to ascertain the level to which these pathways are science-based.

- **Geographical granularity.** Entities may prefer more specific reference pathways that reflect their geography to account for localised starting points, technological readiness and regulatory headwinds or tailwinds. In the absence of pathways with geographical granularity, entities may conduct their own analysis to simulate a regional cut of global pathways. In doing so, they should find suitable scientific sources to justify their approach, and publish the methodologies used. This guidance provides examples of such approaches and methodologies that entities may consider in **Appendix D.**

- **Scope of emissions.** Chosen pathways should encompass all material sources of emissions (Scopes 1, 2 as well as Scope 3 where material), and should be of the same scope as the baseline performance and future targets of the entity. For example, if an entity aims to assess scope 1 and 2 emissions, its selected reference pathway should include coverage of Scope 1 and 2 emissions to provide a comparable basis for the entity's baseline performance and targets. This also applies in cases where entities may wish to assess scope 3 emissions on top of scopes 1 and 2. In this case, entities should use a reference pathway that includes all scopes of emissions.

- **Emissions metric.** Entities should select a reference pathway that has a comparable metric to the entity's baseline performance and future targets (e.g., absolute emissions, physical emission intensity). In other words, if the entity reports its baseline and targets in emissions intensity, its chosen reference pathway should also be expressed in terms of physical emissions intensity.

- **Temperature outcome**. Scientists are broadly aligned on the collective global pathway to limit global warming to well below 2°C and ideally 1.5°C above pre-industrial levels as per the Paris Agreement. The 1.5°C outcome represents the gold standard for what is globally accepted as a credible transition, consistent with international guidance, while the 2°C outcome may be more reflective of climate ambitions for ASEAN entities. Entities should select a reference pathway with a temperature alignment that reflects their transition ambitions.

Selecting reference pathways for entities with multiple business segments

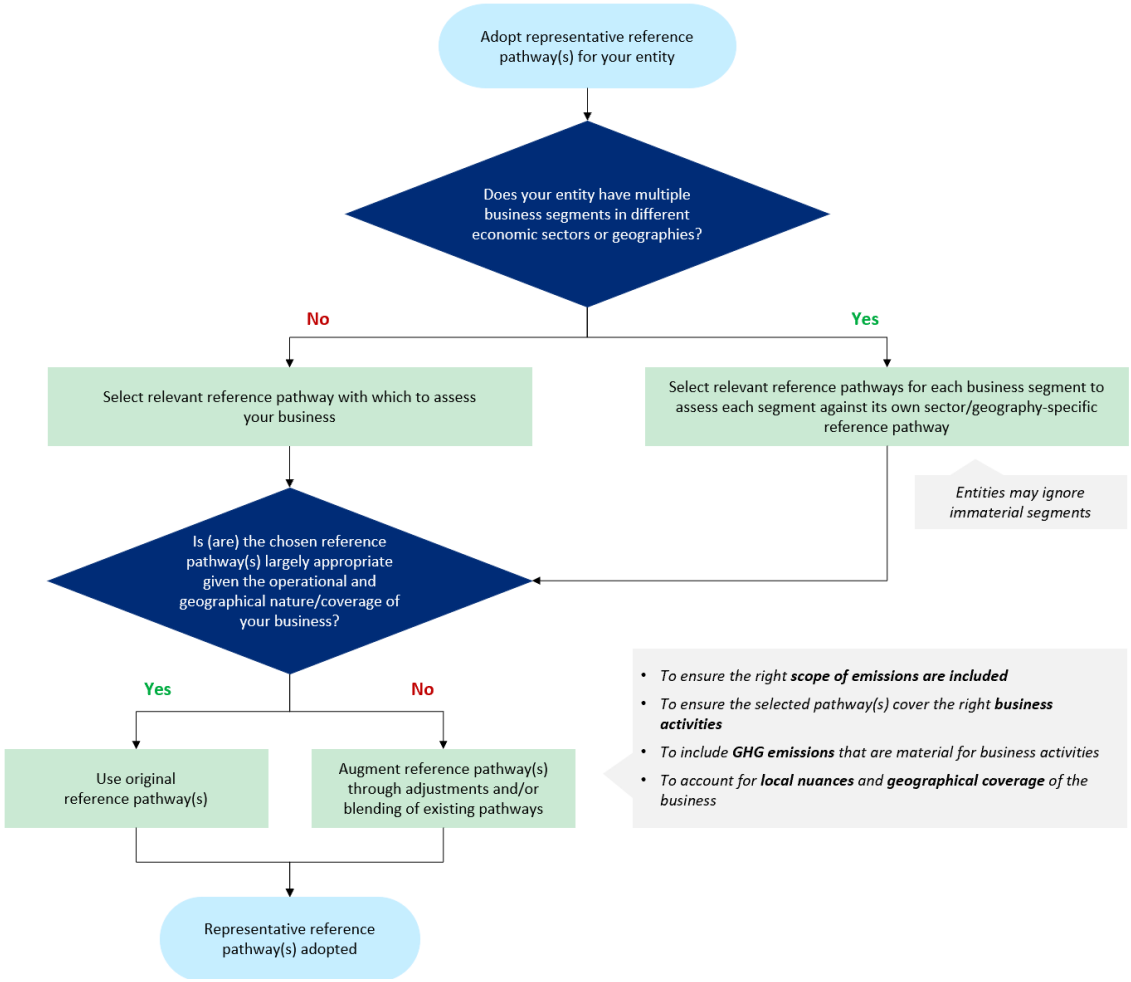
Many entities have multiple business segments which operate in different sectors. Such entities (e.g., diversified conglomerates) should assess each business segment individually against a relevant sector-specific reference pathway, which may differ segment-to-segment. For example, a company that is involved in both the production of crude steel and aluminium should assess its transition plan for its steel business

against a reference pathway for the steel sector, and assess its transition plan for its aluminium business against a reference pathway for the aluminium sector. This segment-specific target setting has been practiced by some leading corporations in ASEAN, and should be followed by the rest of the market in order for entities' overall transition plans to be considered as demonstrating a credible transition.

Entities should apply judgement when deciding which of their segments should have their own decarbonisation targets. It may not be necessary or practical to set targets for segments which are immaterial to the overall business and its GHG emissions[62]. For instance, entities may exclude specific segments from their targets if they belong to sectors that are not classified as highly emitting, such as those outside the NZBA[63] priority sectors.

Entities may refer to **Section 4.2.2.2.** for a list of reference pathway options by sector as part of their pathway selection process. Once the pathway is selected for a segment, entities will need to assess if it is sufficiently representative of that segment's operational conditions. If the selected pathway is not sufficiently representative, the entity may elect to augment the reference pathway based on the approach outlined in this guidance (see **Appendix D**). Entities may refer to **Exhibit 14** below for an illustrative approach for reference pathway selection.

Exhibit 14: Illustration of how entities may approach the selection process of reference pathways



[62] A business segment may be considered immaterial, in terms of emissions, if represents less than 5% of the entity's overall emissions.

[63] Net-Zero Banking Alliance (NZBA) priority sectors are agriculture, aluminium, cement, coal, commercial and residential real estate, iron and steel, oil and gas, power generation, and transport.

4.2.2.1. Key Challenges in Reference Pathway Selection

In practice, there are two broad challenges that entities in ASEAN may face as they select a reference pathway for their transition plan that accurately reflects their business[64]:

- **Entities may find it challenging to determine the most appropriate pathway for their specific context.** This challenge arises as there are multiple reference pathways available for each sector with varying characteristics, as outlined in the previous section. Given the wide range of choices entities could make, they will need to conduct extensive due diligence on the existing pathways that are available for their relevant sectors to find ones which best align with the specific characteristics of the entities' activities.
- **Insufficient localisation and coverage among available pathways.** There are four broad issues that can be observed with available reference pathways which may affect how readily usable they are: 1) insufficient coverage of scope of emissions; 2) insufficient coverage of relevant business activities; 3) insufficient coverage of all material greenhouse gas emissions within a sector; 4) lack of regional granularity for Southeast Asia. As a result, the available reference pathways may not accurately reflect the transition required for a given entity and its actual operating conditions. In this situation, there are two potential paths forward: entities can either wait to set their targets until more detailed pathways are available; or they may choose to augment existing pathways to reflect required nuances to set targets while committing to revise the targets as needed when more detailed pathways are published.

Therefore, this guidance aims to address the challenges encountered by ASEAN entities in selecting an appropriate reference pathway by:

- **Providing a non-exhaustive list of reference pathways by sector** for entities to refer to during their reference pathway selection process. **Section 4.2.2.2.** presents an overview of the sector-specific pathways adopted by several financial institutions in ASEAN and includes a list of reference pathways options that ASEAN companies may consider, contingent upon key characteristics outlined in the previous section.
- **Providing guidance on how entities may augment reference pathways** to more accurately reflect their operational and geographical setup. **Section 4.2.2.3.** contains guiding principles for reference pathway augmentations based on key variables, while **Appendix D** provides illustrative examples of how reference pathways may be augmented through adjustments to existing pathways and/or blending of multiple pathways.

4.2.2.2. Available Reference Pathways by Sector

For each sector, there are specific reference pathways that are typically adopted by financial institutions and real economy companies in ASEAN. These pathways are commonly used as they are net-zero aligned as per the Paris Agreement. However, not all these pathways are global pathways. For example, at present, financial institutions in ASEAN typically select the Mission Possible Partnership (MPP) Technology Moratorium scenario as a reference pathway for their steel portfolio because it has a regional breakdown for Southeast Asia. Hence, entities should carefully evaluate the trade-offs between global pathways and alternative pathways that may offer a more accurate representation of their operational and geographical setup, albeit potentially being less science-based and more susceptible to challenges.

[64] This also applies to financial institutions which may be selecting which reference pathway to use to assess credibility of companies' transition plans.

Exhibit 15: **Brief descriptions of the publishers of reference pathways that are commonly adopted by financial institutions in ASEAN**

Reputable publishers endorsed by financial institutions in ASEAN	Sectors covered	Description
International Energy Agency (IEA)	Power, Oil & Gas, Agriculture, Automotive, Aviation, Shipping, Real Estate, Steel, Aluminium, Coal Mining, Cement, Chemicals	International Energy Agency (IEA) is an intergovernmental organisation that has published a Net Zero Scenario (NZE) which describes a science-based pathway for the global energy sector to achieve net zero CO_2 emissions by 2050 through the rapid deployment of clean energy technologies and energy efficiency.
Network for Greening the Financial System (NGFS)		Network for Greening the Financial System (NGFS) is a coalition of central banks and financial supervisors focused on integrating climate and environmental risks into the financial system. NGFS provides a range of global scenarios such as its Net Zero 2050 scenario which assumes a pathway that is net-zero aligned (1.5C).
Mission Possible Partnership (MPP)	Steel, Aluminium, Cement, Trucking, Shipping, Chemicals	Mission Possible Partnership (MPP) is a global initiative that provides decarbonisation pathways and strategies for hard-to-abate resource and mobility sectors as per the Paris Agreement (1.5C).
Carbon Risk Real Estate Monitor (CRREM)	Real Estate	Carbon Risk Real Estate Monitor (CRREM) is the leading global standard and initiative for decarbonisation of operational emissions for real estate assets. It provides net-zero aligned pathways where energy retrofitting, potential effects of climate change and electricity grid decarbonisation are key decarbonisation levers.
IMO Poseidon Principles	Shipping	The Poseidon Principles is a global net-zero aligned (1.5C) framework for assessing and disclosing the climate alignment of financial institutions' shipping portfolios.
IATA Fly Net Zero	Aviation	Fly Net Zero is the commitment of global airlines to collectively achieve net-zero (1.5C) by 2050 through a combination of maximum elimination of emissions at the source, offsetting and carbon capture technologies.
Science Based Targets Initiative (SBTi)	Power, Agriculture, Maritime, Steel	The Science Based Targets initiative (SBTi) is a global body that enables companies to set greenhouse gas (GHG) emissions reduction targets in line with the latest climate science by providing a framework to set targets that are aligned with the goals of the Paris Agreement.

Entities may refer to **Exhibit 16** for a non-exhaustive list of commonly used reference pathways by sector with characteristics such as geographical granularity, emissions scope, emissions metric, and temperature outcome. This list is intended to assist entities in identifying the most suitable pathway for their specific business needs. When selecting reference pathways, entities are expected to provide adequate justification for their choices, where appropriate.

Exhibit 16: Reference pathway options by sector (non-exhaustive)[65,66,67]

Widely-accepted by financial institutions in SEA		Geographical Granularity			Emissions Scope			Emissions Metric		Temperature Outcome	
Sector	**Reference Pathways**	**Global**	**SEA**	**Country**	**Scope 1**	**Scope 2**	**Scope 3**	**Absolute**	**Intensity**	**1.5C**	**2C**
Steel	MPP Tech Moratorium	✓	✓	✗	✓	✓	✗	✓	✓	✓	✗
	MPP Carbon Cost	✓	✓	✗	✓	✓	✗	✓	✓	✓	✗
	IEA NZE	✓	✗	✗	✓	✗	✗	✓	✓	✓	✗
	NGFS REMIND Net Zero 2050	✓	✓	✗	✓	✓	✗	✓	✓	✓	✗
	NGFS REMIND Below 2C	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓
Aluminium	MPP Sector Transition Strategy	✓	✗	✗	✓	✓	✓	✓	✓	✓	✗
	IAI 1.5C Scenario	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
	IEA NZE	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
	OECM Shared Socioeconomic	✓	✗	✗	✓	✓	✗	✓	✗	✓	✗
Cement	IEA NZE	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
	SBTi 1.5C	✓	✗	✗	✓	✓	✓	✓	✓	✓	✗
	MPP Sector Transition Strategy	✓	✗	✗	✓	✓	✗	✓	✗	✓	✗
	NGFS REMIND Net Zero 2050	✓	✓	✗	✓	✓	✗	✓	✓	✓	✗
	NGFS REMIND Below 2C	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓
	OECM Shared Socioeconomic	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
Real Estate	CRREM	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
	IEA NZE	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
	IEA SDS 2021	✓	✓	✗	✓	✓	✗	✓	✗	✗	✓

[65] Only the pathways that have a temperature outcome aligned with the objectives of the Paris Agreement have been included in this table, where non-qualifying scenarios from organisations like IEA, NGFS and SBTi have been deliberately excluded (e.g., IEA's STEPS or APS, NGFS's current policies scenario).

[66] Only ASEAN countries are considered in the country-level geographical granularity.

[67] NGFS REMIND scenario has granularity for 'other Asia', which may be assumed to include Southeast Asia.

	SBTi 1.5C	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
	OECM Shared Socioeconomic	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
Power	IEA NZE	✓	✗	✗	✓	✗	✗	✓	✓	✓	✗
	NGFS REMIND Net Zero 2050	✓	✓	✗	✓	✗	✓	✓	✓	✓	✗
	NGFS REMIND Below 2C	✓	✓	✗	✓	✗	✓	✓	✓	✗	✓
	NGFS GCAM Net Zero 2050	✓	✓	Indonesia	✓	✗	✓	✓	✓	✓	✗
	NGFS GCAM Below 2C	✓	✓	Indonesia	✓	✗	✓	✓	✓	✗	✓
	IEA SDS 2021	✓	✓	✗	✓	✗	✗	✓	✗	✗	✓
	SBTi 1.5C	✓	✗	✗	✓	✗	✗	✓	✓	✓	✗
Automotive	IEA NZE	✓	✗	✗	✗	✗	✓	✓	✓	✓	✗
	OECM Shared Socioeconomic	✓	✗	✗	✗	✗	✓	✓	✗	✓	✗
	Transition Pathway Initiative	✓	✗	✗	✗	✗	✓	✓	✓	✓	✓
Aviation	IATA Fly Net Zero	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
	OECM Shared Socioeconomic	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
Shipping	IMO Poseidon Principles	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
	OECM Shared Socioeconomic	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
	Transition Pathway Initiative	✓	✗	✗	✓	✗	✗	✓	✓	✓	✓
Oil & Gas	IEA NZE	✓	✗	✗	✓	✓	✓	✓	✗	✓	✗
	OECM Shared Socioeconomic	✓	✗	✗	✓	✓	✓	✓	✗	✓	✗
	IPCC 1.5C	✓	✗	✗	✓	✓	✓	✓	✓	✓	✗
	IPCC 2C	✓	✗	✗	✓	✓	✓	✓	✓	✗	✓
Agriculture	SBTi Flag	✓	✓	Indonesia	✓	✓	✗	✓	✓	✓	✗
	NGFS REMIND Net Zero 2050	✓	✓	✗	✓	✓	✗	✓	✗	✓	✗
	NGFS REMIND Below 2C	✓	✓	✗	✓	✓	✗	✓	✗	✗	✓
	NGFS GCAM Net Zero 2050	✓	✓	Indonesia	✓	✗	✗	✓	✗	✓	✗
	NGFS GCAM Below 2C	✓	✓	Indonesia	✓	✗	✗	✓	✗	✗	✓
	OECM Shared Socioeconomic	✓	✗	✗	✓	✓	✗	✓	✓	✓	✗
Coal Mining	IEA NZE	✓	✗	✗	✓	✓	✓	✓	✗	✓	✗

4.2.2.3. Reference Pathway Augmentation

As noted in the previous section, augmenting reference pathways may be the preferable approach when a suitable reference pathway does not readily exist for a company to adopt. This approach allows for timely target-setting without the need to wait for an appropriate pathway to be made available.

Several financial institutions in ASEAN have taken this approach. They have set portfolio emissions decarbonisation targets using augmented reference pathways to more accurately reflect the idiosyncrasies of their sector-specific portfolios. For instance, known examples include[68]:

- Augmentation of the global IEA NZE reference pathway for the Power sector by regionalising it to Southeast Asia to better reflect the geographical coverage of the business.
- Augmentation of the existing full-fleet IEA NZE pathway for the Automotive sector to account for only new car sales to better reflect client profiles, which consists of mostly manufacturers and distributors of new cars.
- Augmentation of the IEA NZE pathway for the oil and gas sector to cover carbon dioxide equivalent emissions by including methane emissions from oil and gas activities.
- Augmentation of the MPP Tech Moratorium steel pathway by weight-averaging the pathways for different geographies according to size of exposure in these geographies.

Entities may consider augmentation of reference pathways based on these following variables:

- **Scope of emissions.** Entities should ensure that the scope of emissions covered by the selected reference pathway is in alignment with the scope of emissions encompassed by their emissions reporting framework. In specific circumstances, entities may determine that it is necessary to adjust the reference pathway to ensure alignment with their preferred scope of emissions. It is essential to note, however, that any such adjustments should be confined to an upward revision in the scope of coverage. To clarify, while it may be permissible to modify the reference pathway to expand the scope of emissions covered, adjustments that result in a reduction of the scope of coverage should not be conducted (i.e., it may be acceptable to adjust a scope 1 pathway to include scope 2, but it may not be acceptable to adjust a scope 1 and 2 pathway to exclude scope 2).
- **Business activities.** Entities should select a reference pathway that accurately reflects the specific activities and operational profile of their business. In doing so, entities should ensure that the chosen reference pathway comprehensively covers all material business activities pertinent to their operations. In instances where multiple reference pathways are available within a particular sector, entities may consider blending the relevant reference pathways based on the entities' business activities. Additionally, entities may find it necessary to adjust existing pathways to account for unique business nuances, thereby ensuring that the pathway is more closely aligned with their specific operational context.
- **Emissions profile.** Entities should ensure they select a reference pathway that comprehensively encompasses all material greenhouse gases (GHGs) that are emitted from their business activities. In instances where the reference pathway does not adequately account for all material GHGs, the entity may make the necessary adjustments to the pathway to incorporate additional relevant GHGs, thereby ensuring a more complete and accurate representation of their overall GHG emissions.
- **Local nuances and geographical coverage.** Entities should develop a reference pathway that accurately reflects the regional nuances and geographical coverage of their business operations. As some regional

[68] Compiled based on Sustainability Reports and Net-Zero Whitepapers of selected banks.

decarbonisation pathways from science-based sources (particularly by international groups such as the IEA) are still in development and are not yet available as of now, entities may adjust the existing global pathways to simulate a regional cut of the science-based pathway. Additionally, entities may also blend multiple pathways with different geographical scope within the same sector to provide a more accurate representation of the geographical coverage of their business operations.

Appendix D of this guidance will provide case studies of such instances where pathway augmentation may be conducted through adjustments to existing pathways and/or blending of multiple pathways. These case studies are intended to illustrate potential approaches that entities may consider if they seek to make augmentations to pathways. However, the case studies should not be construed as definitive or prescriptive methodologies. Instead, they offer illustrative examples that are derived from real-world practices of leading banks in Southeast Asia, with the aim of offering guidance and inspiration. Entities should consistently evaluate the suitability of the approach for their specific context prior to implementation and should provide a rationale for their chosen methodology where appropriate. Additionally, entities are not confined to the examples provided and may employ alternative approaches, provided that they offer sufficient justification for the methodologies they choose to adopt. In pursuit of this objective, entities may seek to engage Second Party Opinion (SPO) providers to provide assurance on their pathway augmentation approaches (see **Section 4.3.3.**).

4.2.3. Transition Targets

While the current state assessment reflects the entity's starting point and the choice of transition pathway indicates the goalpost for which it may fairly contribute to the objectives of the Paris Agreement, transition targets represent the entity's commitment to progress.

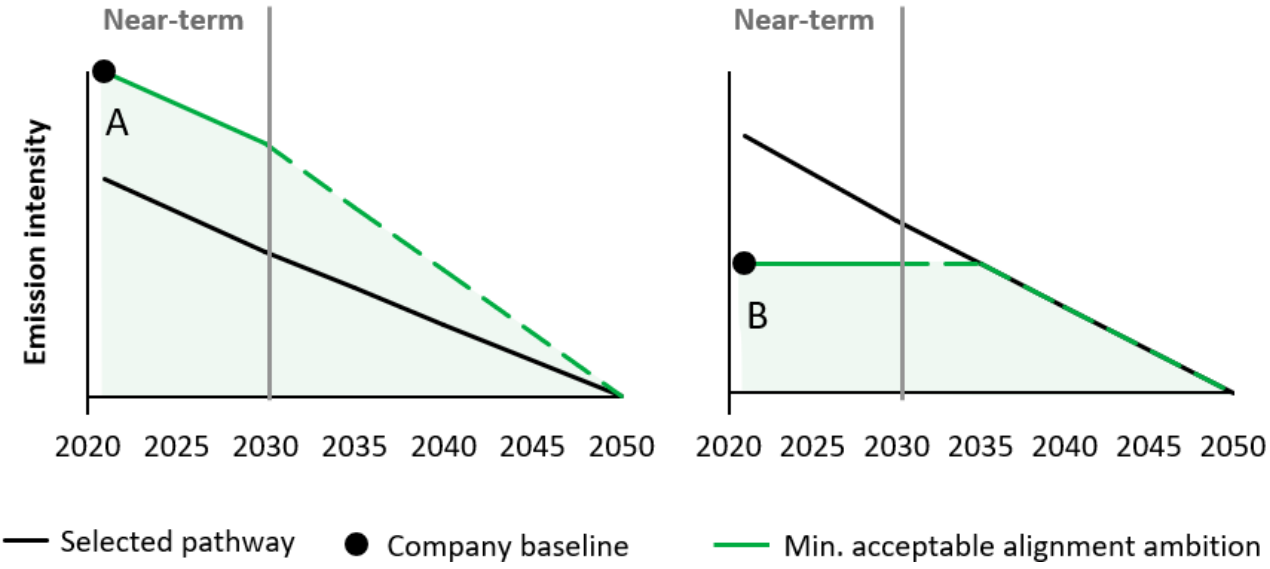
Transition targets should be of comparable scope to the entity's current state assessment as well as the reference pathway. In other words, if the entity has assessed and disclosed Scopes 1 to 3 emissions in metric tonnes of CO_2 for its current state assessment and identified a transition pathway with a comparable scope, its targets should similarly be on Scopes 1 to 3 emissions in metric tonnes of CO_2. Where entities have committed to expanding the comprehensiveness of its current state assessment, it should also make provisions to adapt its transition targets accordingly.

Companies setting **absolute emissions** targets should target decarbonisation commensurate with that of their chosen reference pathway in both interim and long-term goals. This is independent of their starting absolute emissions. That is, if the decarbonisation required by 2030 for the chosen reference scenario is -30%, then the company should also target a decarbonisation of at least 30% from its starting point.

Companies targeting improvements in **emission intensity** will compare their starting point to a regional or global average that may differ significantly from their own emissions intensity – this will result in differences in the amount of decarbonisation that is required and practically achievable. From stakeholder consultations, the market requires entities to set a net zero target year, and in the interim:

- Companies starting above the pathway must decarbonise in parallel as a minimum, with the aim of converging as soon as possible.
- Companies starting below the pathway must remain on or below the pathway, and must not target an increase in emission intensity.

Exhibit 17: Illustrative minimum acceptable alignment with transition pathway



Entities are expected to articulate progress against their selected transition pathway in timebound milestones on an aggregate emissions level and by underlying decarbonisation levers; entities may define their milestones by their typical planning horizons used for strategic decision-making, including near-term, medium-term and long-term.

As a minimum, there should be an emissions target for each timeframe. This should be accompanied by targets for ancillary decarbonisation strategies or activities that demonstrate the company's willingness and ability to progress on its broader emissions target. Interim targets are expected to be more specific and detailed in the near- to medium-term until 2030, given a higher degree of visibility and understanding of feasible activities, but may be broader into the longer term.

In recognition of the difficulty of committing to longer-term targets, discretion should be exercised in the assessment of the medium- to long-term alignment of targets so long as entities clearly demonstrate near-term alignment and a clear net zero target year.

For targets to be accepted by the market, they need to be set in reference to the reference pathway and not solely with reference to the entity's Business-As-Usual performance. A company's progress is only credible where it is contextualised and comparable to the collective emissions reductions required by its transition pathway.

4.3. Element 2: Robustness of Ability to Deliver

Entities should demonstrate that they have the robust ability to deliver on their targets. As noted above, a range of global guidelines already articulates what is expected here – these are broadly consistent with each other though with subtle differences. The approach outlined here is intended to mirror global guidelines in order to maximise interoperability for globally active investors.

Key principles

- **Implementation strategy:**
  - **Action plan**: Detail a roadmap with the actions the entity intends to take to achieve its transition targets, with the following conditions:
    - Differentiation by near-term, mid-term and long-term actions aligned with target milestones.
    - Evaluation of impact of each action towards said targets.
  - **Capital allocation plan**: Establish the financial requirements to execute the action plan and achieve the entity's climate ambition, and detail how the company plans to fulfil financial requirements, including internal and external financing sources.
  - **Risk assessment and mitigation**
    - Identify climate-related opportunities and risks under different climate scenarios, and disclose relevant strategies to manage the needed changes.
    - Identify key assumptions underlying the entity's action and capital allocation plan, and assess delivery risks that may limit the entity's ability to achieve their targets.
  - **Ongoing monitoring**: Develop organisation- and activity-level processes to track ongoing progress against transition targets and adapt strategies accordingly.
  - **Governance**:
    - Establish how the company's board or key decision-makers approves and oversees its transition targets and implementation strategy.
    - Establish the management structure for execution of the implementation plan.
    - Where relevant, align incentives or remuneration for senior management with climate objectives.
    - Develop climate capabilities across the organisation, through hiring skilled talent and providing climate-oriented resources and trainings.
    - Incorporate climate focus into systems and culture (e.g., communication processes on transition progress).
- **Disclosure:**
  - Disclose where the company has demonstrably accomplished the key principles for Climate Ambition and Implementation Strategy; where there are concerns on confidentiality, public disclosure may be on a higher level with full disclosure reserved for external verification and relevant financing stakeholders.
  - Report performance at least on an annual basis or in the event of any material changes.
- **Independent verification**: Seek independent external verification on the entity's overall transition credibility, which includes sustainability-related metrics and targets, as well as implementation strategy.
- **Just transition considerations**: Articulate how just transition considerations are accounted for clearly and transparently, including an assessment of impact on key environmental and social concerns from business-as-usual or transitioning activity where reasonable.

4.3.1. Implementation Strategy

This section details the sub-components of an implementation strategy, or how an entity will embed its climate ambition into its strategic planning, processes and governance.

4.3.1.1. Action Plan

An action plan should qualitatively and quantitatively detail the actions required to achieve their near-, mid- and long-term targets and their impact, preferably by 3-to-5-year intervals. Entities should demonstrate the key elements detailed in **Exhibit 18**.

Exhibit 18: Key elements of a robust action plan

Key elements	Illustrative details
Broad nature of activities required to achieve transition targets by key milestones	Decarbonise existing business and operations, e.g.,: – Sourcing for low-carbon inputs – Improving energy efficiency to reduce energy requirements – Reducing existing high-carbon products or services – Phase out carbon-intensive assets (entities can refer to GFANZ Financing the Managed Phaseout of Coal-Fired Power Plants in Asia Pacific[69] for more details) – Engage upstream and downstream value chain entities to collectively drive decarbonisation, particularly for entities with significant scope 3 emissions Set up new low-carbon business and operations, e.g.,: – Providing new low-carbon products or services in existing business lines (e.g., new low-carbon cement for a cement company) – Setting up entirely new business line (e.g., solar business for a power generation company with gas plants)
Specific actions to deliver on the high-level actions	• Company internal actions, e.g.,: – Research and development plan for new low-carbon technologies – Internal policy review plan to update policies around energy usage, investment decisions etc. – Human resources plan to ensure there are sufficient employees to execute the action plan, and that they are trained to have the required skills • Company engagement actions, e.g.,: – Marketing and sales plan to educate existing customers on new low-carbon products – Business development plan for new low-carbon business lines – Supplier engagement plan to collaborate on decarbonisation initiatives

Companies may consider referencing taxonomies or technology roadmaps to chart their action plan based on the commercially viable best-in-class activities per time period.

Companies seeking asset-specific financing will need to disclose provisions for maintaining alignment over time and/or managing risk of carbon lock-in and/or asset stranding over asset lifetime. In other words, it is insufficient to be transition-aligned at a point in time – companies need to demonstrate how their assessed activity or asset will be managed so that the company remains transition-aligned through to its net zero year. For interim but necessary 'brown' activities, entities should consider provisions in the form of retrofitting or

[69] The Glasgow Financial Alliance for Net Zero (GFANZ). Financing the Managed Phaseout of Coal-Fired Power Plants in Asia Pacific. June 2023.

shortened asset lifetimes for high-emitting activities, or commitments to scaling up near-zero or net-zero technology once commercially viable in the broader context of a transitioning portfolio. This is aligned with the guidance from OECD on how companies should manage asset stranding and risk of carbon-intensive lock-in[70], which is discouraged where it can be avoided.

4.3.1.2. Capital Allocation Plan

Companies should develop a capital allocation plan that details the financing required to execute their action plan. This serves to enables the entity to demonstrate their ability to achieve a transition in alignment with the objectives of the Paris Agreement while remaining profitable. This plan should address the volume of capital required by target milestones, with key capital types being:

- Capital expenditure (CapEx)
- Operating expenditure (OpEx)
- Research and development expenditure (R&D)
- Costs incurred from phase-out of emissions-intensive assets
- Other costs incurred from transitioning activity, or from the costs of managing physical risks as they materialise during the life of the transition plan.

This should be supplemented with planned financial sources, where entities should establish a clear climate-dedicated budget, and clearly disclose the proportion of financing required from internal or external sources, their resourcing plans and financial targets. If entities plan to issue new debt as a key financial source, it should also disclose its projected available cash flows to service such debt and potential implications on its credit profile. Where relevant, entities may consider establishing internal mechanisms to facilitate financial flows for transition activity, such as internal carbon pricing, and disclose relevant details.

4.3.1.3. Risk Assessment and Mitigation

Climate-related opportunities and risk assessment

Companies face various opportunities and risks in a transitioning world; depending on the speed and intentionality of change, these can significantly differ. An entity needs to demonstrate an understanding of what these climate opportunities and risks are under different scenarios and how their strategies may address them. This entails an assessment of a comprehensive list of climate-related opportunities and risks faced on an entity-level, and the prioritisation of those with the greatest degree of materiality. Where feasible, entities may also conduct a structured climate scenario or sensitivity analysis to develop a more comprehensive and robust understanding of potential climate opportunities and risks, which can then help companies evaluate their impacts on their financial position, performance and cash flows. To illustrate, physical climate risk may influence margins and working capital, and companies need to demonstrate a robust understanding of how their subsequent cash flows may support additional debt required for planned capital expenditure.

Entities may refer to existing standards on risk assessment and management for detailed guidance, in particular the International Financial Reporting Standards (IFRS) S2 on Climate-related Disclosures[71], which fully incorporates recommendations from the Task Force on Climate-Related Financial Disclosures (TCFD). For an overview of IFRS S2 and its key elements, entities may also refer to **Section 3.2.**

[70] OECD. OECD Guidance on Transition Finance: Ensuring Credibility of Corporate Climate Transition Plans, 3. Key challenges in transition finance, 3.2.5 Asset stranding and risk of carbon-intensive lock-in. 2022.

[71] International Financial Reporting Standards (IFRS). IFRS S2. June 2023.

For additional guidance on getting started on climate opportunity and risk assessment, users may refer to the detailed TCFD framework that serves as a foundational input into IFRS S2 in **Exhibit 19**.

Exhibit 19: TCFD framework of climate opportunities and risks

- **Overview**: TCFD has defined common climate opportunities and risks that companies might face. Companies can leverage this categorisation in assessing and disclosing the most material climate opportunities and risks. A summary of common climate opportunities and risks from TCFD is as follows[72]:

Category		Common climate opportunities or risks
Climate opportunities		• Resource efficiency • Energy source • Products and services • Markets • Resilience
Climate risks	Transition risks	• Policy and legal • Technology • Market • Reputation
	Physical risks	• Acute • Chronic

- **Implementation recommendations**: The range of relevant climate opportunities and risks, and the associated impact are largely context-specific based on sector, geographic and company factors. This guidance recognises that the process of determining the specific climate opportunities and risks a company is exposed to is highly complex and uncertain. Nonetheless, as a starting point, there are a few steps a company can undertake:
  - Assess the current state and anticipated changes for each of the common climate opportunities and risks TCFD has defined in the specific locations and jurisdictions the company has presence in.
  - Develop an initial view of the strategic responses to each of the common climate opportunities and risks.
  - Estimating the financial impact of potentially realising these opportunities and mitigating these risks.
  - Prioritise efforts in performing more detailed analyses of material climate opportunities and risks based on the initial thinking around the financial impact of climate issues.

Delivery risk assessment

Companies should assess delivery risks of their transition plan and develop measures to mitigate these risks. Given that each forward-looking strategy is built upon key underlying assumptions (e.g., commercial viability of future technology, regulatory circumstances, demand changes), entities should evaluate and disclose how dependent the success of their plans are on whether their assumptions hold true. They are also encouraged to estimate the upside and downside impact on transition progress, should assumptions prove incorrect, and determine how their strategies will change accordingly. This demonstrates how feasible and robust the

[72] TCFD. Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures. 2021.

entity's plan is. Delivery risk evaluation may be best supported with a sensitivity analysis, which can vary in level of complexity and sophistication.

Entities are expected to conduct risk assessment on the general entity-level and the level that the financing instrument is required.

4.3.1.4. Ongoing Monitoring

Companies need to consistently track their transition progress, which informs their ongoing re-evaluation and adjustment of their targets and strategies. Companies are encouraged to develop and embed a systematic monitoring process into their organisational system and processes as well as on an individual activity level. Where companies make use of emissions measurement or estimation tools, they should disclose how and why they have selected these tools. Companies should also establish a systematic process for the recalibration of targets as per ongoing monitoring outcomes.

4.3.1.5. Governance

Companies should establish governance systems oriented to the accomplishment of climate targets and delivery of transition strategies. Companies are strongly encouraged to exercise discretion in the degree to which they develop climate-specific governance structures. Generally, more robust governance shifts will provide greater assurance on the entity's ability to deliver on their implementation strategy. This is more important where an entity is required to achieve a fundamental pivot in their business model to new technologies and activities as part of their transition, over cases where an entity's transition requires the scaling of efficiency improvements and/or renewable energy sources but does not entail any change to their core business operations.

Companies may also refer to GFANZ Expectations for Real Economy Transition Plans, Section 4.5 on Governance for more guidance.

4.3.2. Disclosure

Beyond developing sufficient climate ambition and the necessary qualities underlying a robust ability to deliver on such targets, companies will need to disclose these elements to relevant stakeholders. This applies both on an entity level (e.g., in a sustainability report) and where it is specific to a financing instrument. In the latter, companies may exercise discretion in the focus of the disclosure – for example, provide greater specificity on the targets and action plan during the term of the financing instrument. Broadly, all disclosure should be made in accordance with the International Financial Reporting Standards (IFRS) S1 Conceptual Foundations, which has included the TPT Disclosure Framework. However, entities who follow the disclosure standards published by the IFRS and/or the EFRAG may refer to the ESRS-ISSB Standards Interoperability Guidance to enable compliance with both sets of standards.

Exhibit 20: IFRS S1 Conceptual Foundations

Recommendations from IFRS S1 are built upon 4 key conceptual foundations, which are fundamental qualitative characteristics of useful sustainability-related financial information, and are aligned with other international frameworks on financial reporting and disclosure[73]. The following are the conceptual foundations:

[73] International Financial Reporting Standards (IFRS). IFRS S1. June 2023.

1. Fair representation: A complete set of sustainability-related financial disclosures shall present fairly all sustainability-related risks and opportunities that could reasonably be expected to affect an entity's prospects.
2. Materiality: An entity shall disclose material information about the sustainability-related risks and opportunities that could reasonably be expected to affect the entity's prospects.
3. Reporting entity: An entity's sustainability-related financial disclosures shall be for the same reporting entity as the related financial statements.
4. Connected information: An entity shall provide information in a manner that enables users of general purpose financial reports to understand the following types of connections
    A. The connections between the items to which the information relates – such as connections between various sustainability-related risks and opportunities that could reasonably be expected to affect the entity's prospects; and
    B. The connections between disclosures provided by the entity:
        i. Within its sustainability-related financial disclosures – such as connections between disclosures on governance, strategy, risk management and metrics and targets; and
        ii. Across its sustainability-related financial disclosures and other general purpose financial reports published by the entity – such as its related financial statements

Users that wish to read more about the 4 conceptual foundations can refer to the IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information published in June 2023.

For entity-level disclosure, companies should strive to align with IFRS S2 Climate-related Disclosures[74] where possible. IFRS S2 has been widely recognised by investors and other stakeholders alike and represents a global baseline for sustainability reporting. IFRS S2 consolidates existing efforts and best practices in climate-related reporting by building upon TCFD recommendations and subsuming the SASB Standards and the TPT Disclosure Framework. For instance, paragraph 14 of IFRS S2 describes how companies should disclose their climate strategy and decision-making, including the key progress and underlying assumptions of their transition plans. Users intending to read more about or get started on implementing IFRS S2 can refer to the IFRS S2 Climate-related Disclosure published in June 2023.

Exhibit 21: ESRS-ISSB Standards Interoperability Guidance Conceptual Foundations

The ESRS-ISSB interoperability guidance is designed to help real economy companies align their sustainability reporting with both the European Sustainability Reporting Standards (ESRS)[75] and the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards in a more efficient manner.

The ESRS-ISSB guidance itself does not seek to introduce new standards. It maps and provides recommendations on:

- Where there are commonalities between ESRS and ISSB
- What incremental requirements are needed if an entity currently complying with ESRS seeks to also comply with IFRS S2
- What incremental requirements are needed if an entity currently complying with IFRS S2 guidance seeks to also comply with ESRS

Therefore, entities that plan to be compliant to both standards could refer to the ESRS-ISSB guidance to more efficiently understand the scope of requirements that they need to take into consideration.

[74] International Financial Reporting Standards (IFRS). IFRS S2. June 2023.

[75] European Financial Reporting Advisory Group (EFRAG). European Sustainability Reporting Standards E1. November 2022.

4.3.3. Independent Verification

Market reception towards transition finance to date has been tempered in part due to greenwashing concerns amid the lack of a common international guideline for what constitutes a credible transition deserving of dedicated financing. This is more evident in developing markets, such as in many ASEAN countries, given more significant data gaps and limited track record.

Consequently, obtaining independent verification can be beneficial. Independent verification of entities' transition plans can provide investors with confidence in the reliability of issuers' disclosures. An objective external assessment can also help entities to better understand the robustness of their transition plans, informing the key gaps that entities should prioritise their efforts on, especially for those just starting their transitioning journey with limited expertise in this area. [76]

For capital markets participants operating within strictly regulated environments, seeking independent verification of their transition plans may be especially important. In such environments, companies must take extra care that their public statements and disclosures are accurate, fair and transparent. Companies are encouraged to proactively seek second party assurance on their transition plans, while national governments and regulators may consider establishing policies that set minimum standards and requirements for independent verification of transition plans in the markets that they control.

The scope of independent verification should include the following:

- Upfront assessment of all requisite elements of a credible transition as laid out in this guidance, including sustainability-related metrics, targets and implementation strategy
- Annual assessment of progress against targets and justifications for anomalous over or underperformance
- Ad-hoc assessment on continued transition credibility where any material revisions are made to targets or implementation strategy

ASEAN entities are additionally encouraged to publicly disclose the relevant credentials of their verifier and the verification assurance report(s) during the term of the financing instrument. External verifiers should demonstrate that they have the appropriate qualifications and experience in the sectors of assessment. This is consistent with the reporting guidance of the ASEAN Sustainability-Linked Bonds Standards.

In selecting an independent verifier and in undergoing the verification process, ASEAN entities may refer to the International Standard on Sustainability Assurance 5000 (ISSA 5000)[77] which is a proposed global standard for sustainability assurance developed by the International Auditing and Assurance Standards Board (IAASB). This standard was developed in collaboration with other leading standard-setting bodies to improve the reliability and credibility of sustainability information by establishing a global benchmark for providers of sustainability assurance services. By referring to ISSA 5000, ASEAN entities can better understand expectations that may be relevant towards developing and demonstrating a robust and credible transition plan.

[76] In the course of developing this guidance, several external verifiers were interviewed. There are many parties who can perform verification of transition plans, including S&P, Morningstar Sustainalytics, and DNV, among others.

[77] International Auditing and Assurance Standards Board (IAASB). International Standard on Sustainability Assurance 5000. 2023.

4.3.4. Just Transition Considerations

While this guidance focuses on an entity's climate ambition with regards to climate change mitigation, companies are also encouraged to incorporate just transition considerations into their transition strategy where possible. This ensures that any forward-looking transition strategy sufficiently accounts for potential adverse environmental impacts (e.g., climate adaptation, biodiversity, sustainable waste and water management) and social considerations (e.g., ensuring quality jobs, preventing displacement). For example, an action plan that involves the managed phase out of coal will adversely affect the community where the entity's coal plants are based in, and should be appropriately paired with mitigation measures where reasonable.

Companies should clearly and transparently articulate how they intend to account for just transition considerations, and may also refer to existing guidance from GFANZ Expectations for Real Economy Transition Plans for recommended considerations and actions a company might undertake.

Exhibit 22: Just transition disclosures relevant for financial institutions in GFANZ Expectations for Real Economy Transition Plans published in September 2022[78, 79]

COMPONENT	DISCLOSE THE COMPANY'S	BIG	CA100+	CIC	GRICCE	IGCC	WBA
Objectives and priorities	• Overall strategy to ensure a just transition						
Activities and decision-making	• How the company is managing the phaseout of high-carbon assets with respect to affected communities and workforces						
	• How the company is incorporating the just transition into capital allocation decisions						
	• The sensitivity of the just transition to different assumptions						
Products and services	• The accessibility of new products and services offered by the transition to customers, especially vulnerable customers						
Value chain	• How the company is supporting its suppliers' just transition						
	• How the company is supporting customers that are affected by the transition plan, especially vulnerable customers						
Industry	• Current and planned engagement with industry associations on the topic of the just transition						
Government and public sector	• Current and planned engagement with the public sector to drive just transition policies						
	• Current and planned engagement with communities, including decision-making influenced by consultation						
Metrics and targets	• Targets for impact metrics and the rational for selecting such metrics • Percentage of workers or workers' representatives participating in dialogue regarding the just transition • Percentage of at-risk workers being offered retraining or redeployment • Number of dialogue sessions being held with communities within the year • Number of job losses within the company due to transition plan actions, such as closure of a facility • Number of sustainable jobs created at the company as a result of transition plan actions						
Roles, responsibilities, and remuneration	• The role the board and other stakeholders (e.g., workers) have in overseeing the just transition						
Skills and culture	• Commitments or programs for workers affected by the transition plan (e.g., retraining or redeployment)						
	• Commitments to providing equal access to opportunities for all workers (e.g., promote diversity and inclusion)						

[78] Initiatives referred to in the exhibit are abbreviated as follows: Business for Inclusive Growth (BIG), Climate Action 100+ (CA100+), Council for Inclusive Capitalism (CIC), Grantham Research Institute on Climate Change and the Environment (GRICCE), Investor Group on Climate Change (IGCC), World Benchmarking Alliance (WBA).

[79] Glasgow Financial Alliance for Net Zero (GFANZ). Expectations for Real-economy Transition Plans. September 2022.

Additionally, companies may use existing tools and methodologies to inform their approach to incorporating a just transition into their plans. To illustrate, the ASEAN Taxonomy has integrated Do No Significant Harm (DNSH) and Social Aspects criteria for any entity looking to assess their degree of taxonomy alignment with a climate change mitigation focus. Broadly, activities must not cause significant harm to key environmental or social objectives as requisite for being taxonomy eligible, on top of specific climate change criteria. Companies in ASEAN may refer to the recommended qualitative assessment from the taxonomy to account for a just transition, primarily on an activity level. For an entity-level assessment on climate targets and strategies, users may refer to guidance from OECD on how entities may assess a just transition with reference to their existing frameworks on how to identify and mitigate sustainability and social risks[80].

[80] OECD. OECD Guidance on Transition Finance: Ensuring Credibility of Corporate Climate Transition Plans, 4. Elements of credible corporate climate transition plans, Element 6: Addressing adverse impacts through the Do-No-Significant-Harm (DNSH) Principle and RBC due diligence. 2022.

4.4. Transition Credibility Tiers

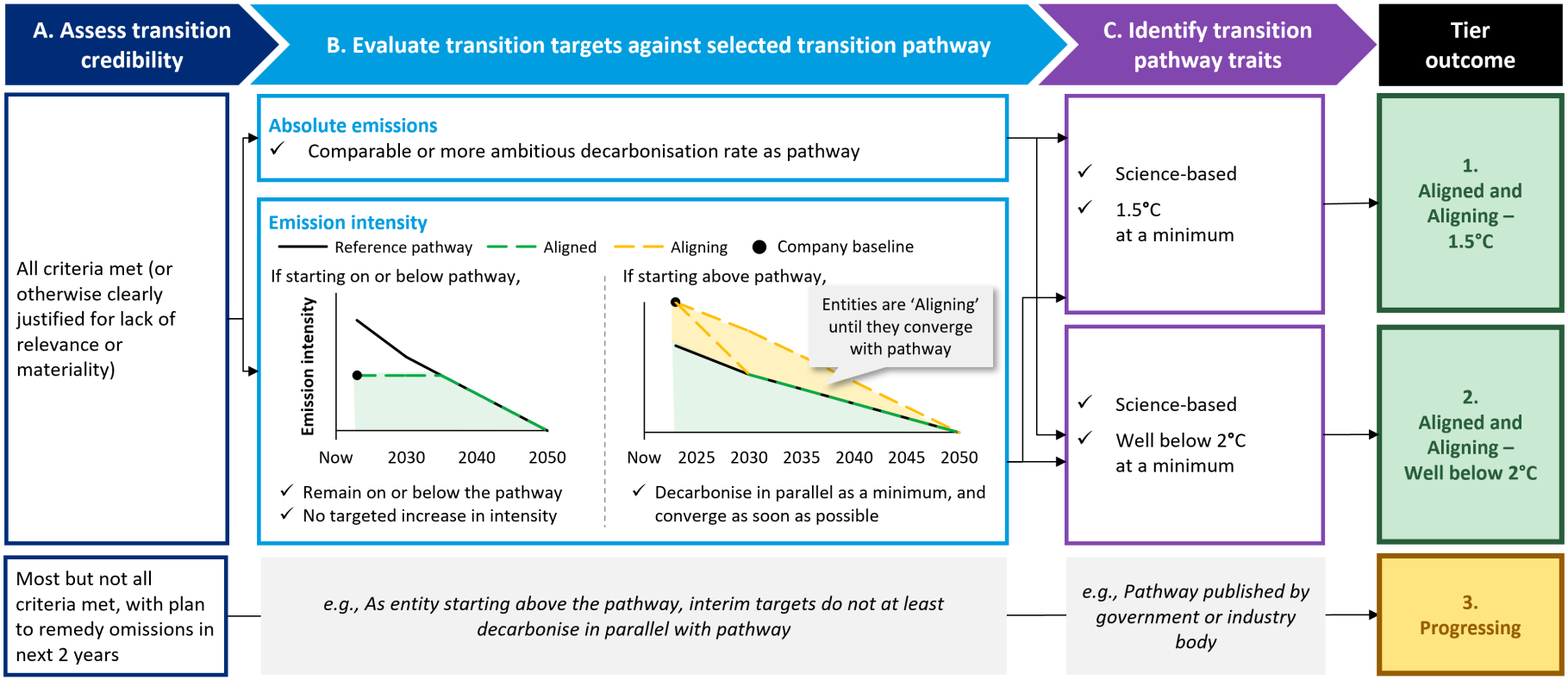
Transition plans remain a work in progress for many corporates, especially in ASEAN – whilst an encouraging number of companies now have targets and decarbonisation plans, very few would currently meet all of the requirements above. Similarly, ambition levels vary – some companies already have targets that are explicitly 1.5°C aligned or aligning, whilst others have less ambitious approaches. Concurrently, both issuers and investors recognise the need for nuance, and these principles will best serve decarbonisation if they allow a meaningful amount of finance to be provided to a meaningful number of companies, whilst simultaneously creating an incentive for companies to create and upgrade their plans.

Therefore, this guidance proposes three tiers to reflect how approaches may differ for transitioning entities by climate ambition and/or robustness of their ability to deliver, as detailed in the subsequent two exhibits. Each tier will likely face varying extents of investor demand and available supply, and the goal is to provide a framework by which differentiated market dynamics can be meaningfully represented.

Exhibit 23: Transition tiers framework

	1. ALIGNED AND ALIGNING – 1.5°C	2. ALIGNED AND ALIGNING – WELL BELOW 2°C	3. PROGRESSING
Description	Entities that demonstrate sufficient climate ambition that is already aligned or aligning with a **science-based 1.5°C trajectory** and meet **all** other criteria of transition credibility	Entities that demonstrate sufficient climate ambition that is already aligned or aligning with a **science-based well below 2°C trajectory** and meet **all** other criteria of transition credibility	Entities that demonstrate **most but not all** elements of ability to deliver and/or a climate ambition that is material but **not yet aligned or aligning to well below 2°C**, and have committed to addressing any material omissions in the next **2 years**
Rationale	• Consistent with international transition finance guidelines and market expectations • Reflective of greatest investor appetite, but likely sets an aspirational tier only achievable by select climate leaders	• Consistent with some international transition finance guidelines given that this is consistent with the objectives of the Paris Agreement, • More reflective of climate ambitions across ASEAN • Developed to facilitate realistic progress: Presently achievable by more issuers in ASEAN, and likely to have sufficient investor appetite	Developed to be inclusive and representative of the majority of ASEAN issuers that are still in the early stages of their climate journey, by: • Directing capital towards the more climate mature • Facilitating capability development

Exhibit 24: Differentiating criteria of transition tiers[81]



[81] To qualify for Tier 3, entities may either (A) achieve most criteria across all sub-elements even if they may not fully meet all criteria, or (B) meet all criteria other than that required for Independent Verification, as a less critical element of transition credibility, so long as they have a plan to remedy any omissions within the next 2 years (e.g., disclosing a clear action and capital allocation plan only for the near term may be acceptable).

The 1.5˚C tier represents the gold standard for what is globally accepted as a credible transition, consistent with the common principles of the 6 reviewed international guidelines as well as GFANZ' latest guidance on how 'Aligned' and 'Aligning' entities' targets should compare against their selected reference pathway[82, 83]. Investor appetite will likely be the greatest for opportunities in this tier, given that many investors have set portfolio steering targets at least in line with 1.5°C, although the stringency of its criteria may limit available supply – this sets an aspirational standard pegged to global ambition for many ASEAN companies.

While retaining the robustness of almost every criteria of the previous tier, **Well below 2°C** is more reflective of regional climate ambitions, where many issuers and select countries have set targets aiming for well below 2°C. This tier aims to facilitate realistic progress, in recognition of ASEAN companies' current climate aspirations and maturity and a fair degree of investor willingness to engage with transitioning companies that have robust plans but fall short of expected climate ambition.

Lastly, **Progressing** aims to be inclusive of companies that meet most but not all criteria of transition credibility, and require financing for transitioning activity. Many ASEAN companies are in the early stages of their climate journey and may still be working towards developing relevant capabilities – where they are able to show progress across most (if not all) sub-elements of transition credibility even if they may not meet the full set of criteria and commit to addressing any gaps in the near term, they should be acknowledged for their efforts. The purpose of this tier is two-fold: facilitating capability development of real economy companies, and directing capital towards the more climate-conscious companies to facilitate decarbonisation efforts, even if they do not demonstrate the full set of characteristics expected by the market. The latter also reflects evolving investor interest in steering their full portfolio in line with their ambitious climate goals, independent of labels or how this intersects with specific financing instruments.

This also accounts for a rapidly growing segment of real economy issuers that have aligned with climate ambitions with the trajectory of the jurisdictions they operate in and/or a common industry commitment. This represents a grey area in existing guidance; these pathways are internationally recognised as credible where they incorporate inputs from science-based models. However, in absence of that, there is no consensus on whether these pathways can be meaningfully considered as having the sufficient ambition required. To illustrate, scientists agree that globally, Nationally Determined Contributions (NDC) lack sufficient ambition to achieve objectives consistent with the Paris Agreement; one publicly available resource that evaluates the temperature outcome of NDCs is the Climate Action Tracker[84]. However, pathways published by countries and industry bodies can vary significantly, and where they are of sufficient ambition may be acceptable by investors as adequately credible. Therefore, in recognition of the ongoing debate on the perceived credibility of and potential differences in investor demand for such pathways, this guidance differentiates such entities under a separate tier.

The ASEAN Transition Finance Guidance encourages all entities across all sectors to decarbonise at the earliest opportunity. Nevertheless, there may be instances in which deferring emission reduction is unavoidable due to factors such as technology readiness, national policy and regulations, and other reasons. Entities that consider it necessary to delay their decarbonisation efforts are required to provide clear rationale and strong evidence as to why earlier decarbonisation is not feasible. Without such substantiation, these entities' transition plans may be perceived as less credible, potentially leading to the entities not being able to qualify for higher tiers in the ASEAN Transition Finance Guidance.

Investors can adopt a portfolio approach and use a range of transition finance strategies to deliver on their climate ambitions. An investor with a stated ambition to support a transition to Net Zero consistent with 1.5C warming should avoid a narrow focus on paper decarbonisation of their portfolios. They can help drive

[82] Glasgow Financial Alliance for Net Zero (GFANZ). Scaling Transition Finance and Real-economy Decarbonization. December 2023.

[83] By GFANZ' latest guidance, entities with a credible transition plan aligned with 1.5°C that start above the reference pathway will be considered 'Aligning' for as long as they have yet to converge to the pathway; correspondingly, only entities on or below the pathway (all other conditions met) can qualify as 'Aligned'.

[84] Climate Action Tracker. Climate Action Tracker website. n.d.

real economy decarbonisation through investment and stewardship of companies in the 2C or progressing tiers, which may need more engagement and financing to make progress. They can combine this with other transition finance strategies such as investment in climate solutions or other low emissions companies such that the overall portfolio remains 1.5C aligned.

5. Way forward for Transition Finance in ASEAN

As real economy companies embark on their transition journey, several of the essential components are now in place to facilitate their initial actions. Climate targets across various sectors are well-defined and reflected by science-based reference pathways. This guidance outlines the necessary principles to credibly demonstrate their transition to achieve these targets. In addition, it also aids financial institutions to direct capital to these real economies by establishing tiers that differentiate climate ambition and transition plan quality. Therefore, real economy companies should now have a solid foundation to begin setting their targets, developing transition plans, and commence operationalisation.

As national governments develop additional policies and regulations, and as global climate expectations and regional maturity evolve, the guidance may be updated to further support capital market participants in their pursuit of climate ambitions.

Appendix A. Stakeholder consultation for ATFG V2 development

Exhibit 25: Key findings from stakeholder consultation and how they are addressed in the development of ATFG V2.

Key findings	Description	How it is addressed in ATFG V2
Many financial institutions have set their own definitions of Transition Finance due to an absence of a unified definition from standards setters and regulators	Many national and international bodies have defined Transition Finance regarding financing of specific activities. For example, the ASEAN Taxonomy Board (ATB)[85] has published the ASEAN taxonomy for Sustainable Finance, where it provides market participants with guidance on assessing whether activities can be labelled as "green" or "transition". However, there is less uniform guidance on how to consider finance to transitioning entities rather than specific activities they are undertaking. Can this be considered as transition finance because it is supporting the entity to transition, or should it not be as there is no specification that the finance is used for the entity's transitionary activities rather than its legacy activities? Many financial institutions have developed their own views on this question, often referencing global and regional guidelines (including the ATFG), but ultimately making their own interpretations.	ATFG V2 has been updated to provide further clarity on three broad categories of transition finance, namely 1) green finance that is extended to a specific activity that is in line with GHG emissions required in a net zero world, 2) transition finance that is extended to a transitionary activity that is necessary for a just net zero transition but is not green, and 3) transition finance that is extended to a transitioning entity to support its transition without being directly linked to any of the entities' specific activities. An explicit aim of ATFG V2 is to facilitate growth of the third category of transition finance. It provides this definition in the hope that doing so encourages more financial institutions to label such finance as transition finance and therefore increase the volume of such finance that is being extended.
Many of the reference pathways to net zero published by scientific and industry bodies lack the necessary granularity and localisation to fully reflect the idiosyncrasies of the ASEAN region	To evaluate the credibility of an entity's transition plan, its ambition should ideally be measured against a reference pathway that reflects the necessary transition in the region(s) and sector(s) in which the entity operates. However, many of the credible science-based reference pathways that financial institutions are employing to evaluate entities' transition	ATFG V2 sets the principle that, where credible science-based reference pathways do not fully reflect the idiosyncrasies of the ASEAN region, financial institutions can augment them to make better assessments of entities' transition plans. It is noted that the preference is still to use the reference pathways where possible, and that as the bodies which publish the reference pathways include more details, financial institutions should re-evaluate whether

[85] ASEAN Taxonomy Board. ASEAN Taxonomy for Sustainable Finance version 3. April 2024.

	plans, such as those from the IEA[86], MPP[87], CRREM[88], do not offer the required level of detail. While ideally the bodies publishing reference pathways will increase their granularity in future iterations, it is critical to avoid the lack of detail becoming a barrier to companies creating transition plans and to transition finance until this happens.	they can be used directly rather than continuing to reference to augmented versions. ATFG V2 contains a series of case studies to demonstrate how augmentations may be made to credible science-based reference pathways.
The certification of Transition Finance to transitioning entities as a tradable asset class is not necessary at this stage, though second party opinions on entities' transition plans may be useful	There is limited demand from financial institutions for a strictly defined tradable asset class for transition finance to transitioning companies, which seems unlikely to grow in the near future. This is driven by two main factors. Firstly, many financial institutions have already established their own definitions of what constitutes a transitioning entity. These often slightly differ from one institution to another, and there currently appears limited appetite to change these definitions. Secondly, there are many idiosyncrasies to consider when identifying whether an entity is undergoing a credible transition. The case-by-case assessments that are required make it hard to set a strict definition without missing necessary entity-specific nuances. Nonetheless, stakeholders throughout the consultation did recognise the value of obtaining second party opinions on entities' transition plans which could help add credibility to the assessments that financial institutions are already making.	ATFG V2 intentionally does not address this feedback from the consultation process directly. While ACMF wants to see a deepening of transition finance across ASEAN, it is agnostic to whether this happens through a strictly defined tradable asset class or through financial institutions or other providers of capital increasing their direct support to transitioning entities or transition activities. Meanwhile, it is not the role of ACMF to mandate that real economy companies or financial institutions obtain second party opinions on their transition plans or transition plan assessments.
ATFG's separation of transition tiers by temperature ambition is sufficient, and it is not necessary for ATFG V2 to further separate between aligned and aligning entities	Other guidelines define separate transition tiers for entities that are already aligned with reference pathways versus aligning entities whose emissions are currently above the reference pathway though with a plan to reduce in line with the reference pathway. ATFG V1 took the position that it is critical for finance to flow to both aligned and aligning companies (as defined in **Section 4.4**) to enable all their transition plans, and therefore made no distinction between	ATFG V2 continues to apply the transition tiers that were defined in the first version of the guidance.

[86] International Energy Agency

[87] Mission Possible Partnership

[88] Carbon Risk Real Estate Monitor

	these entities in its transition tiers. Transition tiers were differentiated between entities aligned or aligning to 1.5°C versus those to aligned or aligning to well below 2°C. This was to recognise that realities of ASEAN where many governments' nationally defined contributions (NDCs) are not aligned with 1.5°C net zero by 2050 reference pathways. The ATFG consultation process did not raise significant concerns with the way the transition tiers are defined in the ATFG.	
ATFG Version 1 is sufficiently interoperable with global standards	Throughout the consultation, it was noted that variations exist between the ATFG and other guidelines, as well as independently between those other guidelines. However, it was considered that ATFG is broadly consistent with global standards across key areas with differences largely aimed to ensure that the ATFG is fit for purpose for its intended application in ASEAN.	ATFG V2 continues to apply to the key content of the ATFG, instead focusing on providing additional details and clarifications. It is expected that ATFG already offers adequate applicability for financial institutions, and for real economy institutions, to adopt or reference in ASEAN.
Financial institutions have appetite to extend more transition finance in ASEAN, but there are not enough real economy companies in the region with robust transition plans that could be used to identify transition finance	While other more developed regions (especially the EU) have observed a growing trend in the number of companies with robust transition plans, this trend remains predominantly confined to large corporations within ASEAN. Many smaller companies in ASEAN have yet to publish transition plans. Various hypotheses were raised for drivers of this, including that there is limited push from regulations to make companies set transition plans, lack of economic incentives for companies that do so, and insufficient understanding of what it would take to set and follow through with credible transition plans.	One of the ATFG's intentions is to help increase understanding of what credible transition plans entail. The combination of the content already contained in ATFG V1 and the updates in ATFG V2 should provide this in the ASEAN context. ATFG V2 intentionally does not address the hypotheses regarding push from regulations or pull from economic incentives for companies to set and follow through with transition plans. These are extended beyond the scope of this guidance and would require concerted effort from governmental and regulatory bodies, as well as financial institutions.

Appendix B. Green and Transition Finance Applications

B.1. Case Study on Green Finance

Exhibit 26: Example of how Green Finance may be used to finance activities that result in low to net-zero emissions and are aligned to Paris Agreement

Context of illustrative case study
Company A is a major solar farm operator, with a global presence and multiple farms located within Malaysia. It is seeking project financing for the construction of a new solar farm in Malaysia and wishes to assess the project against the ASEAN Taxonomy, under the Plus Standard (PS) methodology.

Assessment tools	ASEAN Taxonomy v3; Plus Standard (PS) Methodology under activity 351 [021]: Electricity generation using solar PV technology
ASEAN Taxonomy Technical Screening Criteria (TSC)	**Tier 1 (Green)**: Activity generates electricity using photovoltaic (PV) technology **Tier 2 (Amber T2)**: Not available **Tier 3 (Amber T3)**: Not available
Assessment results	**Tier 1 (Green)** – this project may be categorised as one that is eligible for Green Finance (assuming other Essential Criteria are met e.g., DNSH[1], RMT[2] and SA[3])

1. Do No Significant Harm
2. Remedial Measures to Transition
3. Social Aspects

B.2. Case Study on Asset-level Transition Finance

Exhibit 27: Example of how Asset-level Transition Finance may be used to finance activities that are critical for sectoral transformation in the short-term

Context of illustrative case study
Company B is a global commercial fleet operator, with large presence in Indonesia. It is seeking project financing to replace all of its fleets to plug-in hybrid cars with an average direct emissions of 40 gCO_2e/v-km, with expectation to be operational in 2026. They wish for such project to be classified under the ASEAN Taxonomy.

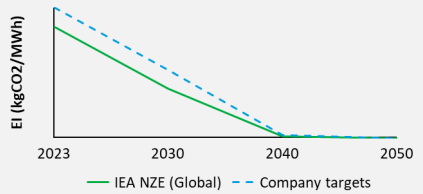
Assessment tools	ASEAN Taxonomy v3; Plus Standard (PS) Methodology under activity 492 [002] – Transportation by motorbikes, passenger cars and light commercial vehicles
ASEAN Taxonomy Technical Screening Criteria (TSC)	**Tier 1 (Green)**: <50 gCO2e/v-km until 2025, then 0 from 2026 **Tier 2 (Amber T2)**: <50 gCO2e/v-km until 2030 **Tier 3 (Amber T3)**: <100 gCO2e/v-km until 2030
Assessment results	**Tier 2 (Amber T2)** – this project may be categorised as one that is eligible for Asset-Level Transition Finance (assuming other Essential Criteria are met e.g., DNSH[1], RMT[2] and SA[3])

1. Do No Significant Harm
2. Remedial Measures to Transition
3. Social Aspects

B.3. Case Study on Entity-level Transition Finance

Exhibit 28: Example of how Entity-level Transition Finance may be used for issuers with credible transition plans that are aligned or aligning to science-based reference pathways

Context of illustrative case study
Company C is a power generation company in SEA who has chosen Global IEA NZE pathway as a reference to set its transition targets. It is seeking equity injection from investors to expand its renewable fuel mix and decarbonise in line with the pathway.

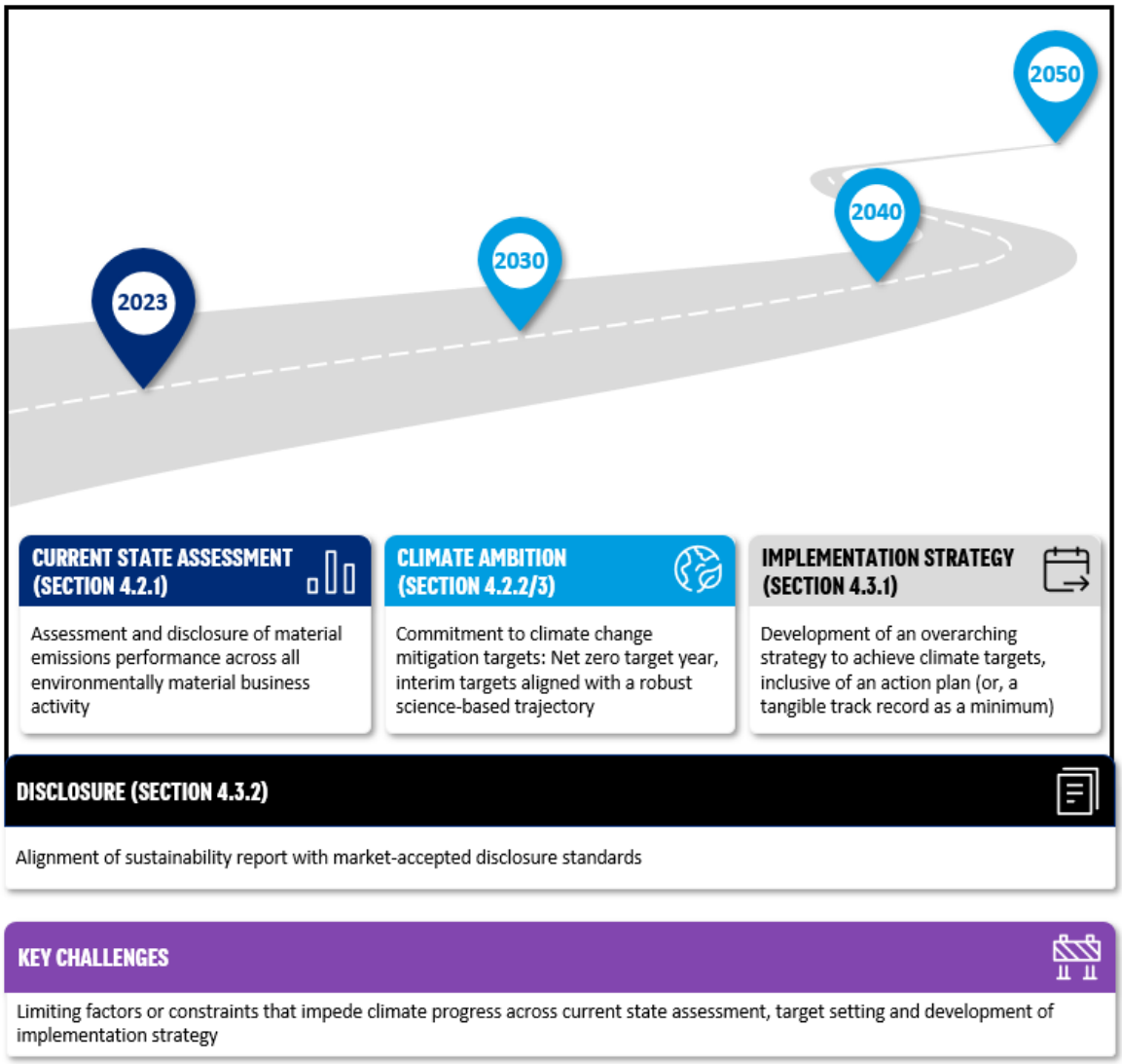
Assessment tools	ASEAN Transition Finance Guidance Version 1
Transition targets	Reduce its emissions relative to starting point to ~50% by 2030, ~1% by 2040 and fully renewable by 2050
Assessment criteria (non-exhaustive)	 1.5°C aligned pathway Decarbonize in parallel to pathway in the short term Converge to pathway by 2050
Assessment results	**Aligned and aligning to 1.5C** – this entity may be considered as eligible for Entity-Level Transition Finance (assuming other essential criteria are met i.e., Robustness of Ability to Deliver assessment)

Appendix C. Current State of Market in ASEAN

C.1. Real Economy Companies / Issuers

Global decarbonisation in line with the objectives of the Paris Agreement is contingent upon the progress of real economy companies. For many, this translates into a significant paradigm shift in their strategic priorities and operations – to transition from an emissions-intensive business model to net zero will be incredibly challenging, and requires a strong foundation in understanding (1) where they currently are, (2) where they need to be, and (3) how to get there.

Exhibit 29: Key points of evaluation for ASEAN real economy companies

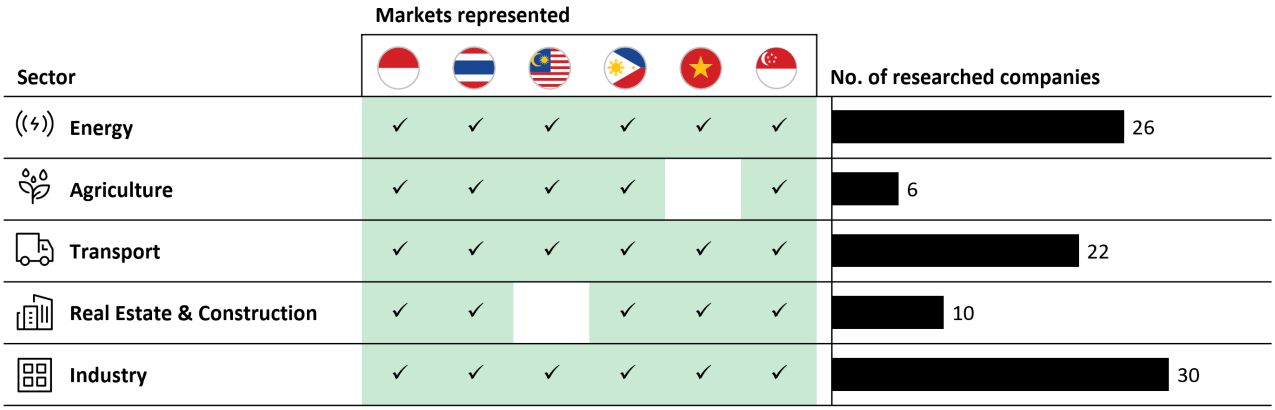


While ASEAN real economy companies can vary significantly in climate maturity and face materially different operating contexts and constraints, developing an understanding of how they are performing across these three elements and the key challenges that might undermine progress will serve as a useful foundation for targeted guidance to address key capability gaps. This research focuses on select

elements of climate maturity that can be meaningfully assessed from publicly disclosed information, and will not constitute a comprehensive assessment of all dimensions (see **Exhibit 30** for key points of evaluation).

Desktop research was conducted on 94 companies based in ASEAN from five broad sectors of Energy, Agriculture, Transport, Real Estate & Construction, and Industry. These companies were selected as a representative sample of the largest ASEAN-based entities by latest available revenue data, headquartered across varied countries as well as operating within different sectors and across parts of the value chain. Key sources include sustainability reports, press releases and third-party assessment initiatives (e.g., Climate Action 100+, Transition Pathway Initiative). This was also supplemented stakeholder consultations with select issuers.

Exhibit 30: Breakdown of researched ASEAN companies by sector and country[89]



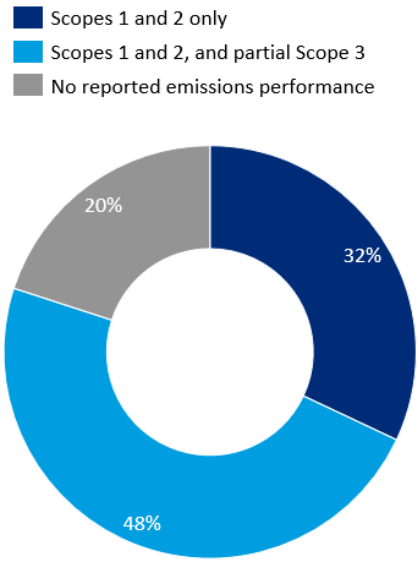
The following findings represent an outside-in perspective of large ASEAN real economy companies' climate ambitions and capabilities. As this research effort relies heavily on latest available publicly disclosed data, this may not be indicative of full issuer capabilities nor recent progress. This also reflects only an evaluation of large companies, which will be more well-resourced and on average, advanced than vast majority of remaining companies - small and medium enterprises - in ASEAN.

C.1.1. Current State Assessment

While most ASEAN companies have publicly disclosed their historical emissions performance, some may be limited in scope. A comprehensive baseline emissions assessment includes all material emissions that a company directly generates (Scope 1 and 2) and enables upstream or downstream in the value chain (Scope 3). While approximately 8 in 10 researched ASEAN companies have disclosed their Scope 1 and 2 emissions as a minimum, many entities may still be scaling up their assessment capabilities and may not have included the full scope of all emissions-intensive business activities in their reported figures nor all material sources of emissions. Commonly, such entities report direct emissions only for core business activities or assets in select geographic segments, which can represent material omissions and therefore serves an inaccurate representation of the entity's baseline emissions. However, the proportion of ASEAN companies that have disclosed some degree of Scope 3 emissions stands at almost half, signalling that ASEAN companies are beginning to conduct more comprehensive baseline emissions assessments across all emissions scopes.

[89] Research on ASEAN companies was conducted in Q3 2024.

Exhibit 31: Proportion of researched ASEAN companies by emission scopes reporting



Inconsistency in the comprehensiveness of entities' disclosed emissions performance gives rise to challenges in comparability and usability of such data. Given how varied entities' disclosed emissions data may be, this poses an additional burden of data quality evaluation for both the entities themselves and external parties before this can be meaningfully used for assessment or other purposes (e.g., benchmarking), if at all. Companies with an insufficiently comprehensive emissions assessment may find that their climate targets may be perceived as less credible, given that it is based on a limited baseline, and may also find it challenging to use existing tools with specific quantitative criteria. For example, the EU and ASEAN taxonomies have largely defined the quantitative thresholds by which to identify green or transition activities based on lifecycle emissions; companies that have only assessed direct emissions may not be able to directly evaluate their activities per these thresholds and may consider alternative proxy methods to refer to these taxonomies in the interim[90].

C.1.2. Climate Ambition

ASEAN real economy companies are increasingly climate aware, with almost three quarters of researched entities committing to net zero targets. Additionally, almost two thirds of these researched entities are decarbonising in line with transition pathways. However, the degree of climate ambition can vary significantly depending on what predominantly motivates these entities to act. While more ASEAN entities are beginning to adopt pathways from science-based model outputs, many are still strongly incentivised by national commitments and regulations in the jurisdictions they operate, which often represents the impetus for large state-owned or affiliated entities to lead climate action in their respective sectors. Nearly half of the companies that are aligned with transition pathways have committed to decarbonising in line with national targets to achieve net zero. For the remaining companies, climate urgency may be buoyed by shareholder pressures on climate change,

[90] For companies that have assessed only direct emission intensity to still evaluate their activities by such taxonomies' quantitative thresholds based on lifecycle emission intensity, they may potentially approximate their lifecycle emission intensity by applying a simple scaling factor based on the sector industry average ratio of lifecycle to direct emission intensity. This will represent an estimation of what their respective activities' lifecycle emission intensity could be, and should serve strictly as an interim measure prior to their assessment of all emission scopes. This ratio should be developed with reference to reliable science-based sources, such as IPCC or peer-reviewed research papers. Where companies have done so with the intention of disclosing their degree of alignment with taxonomies, they should clearly disclose their methodology and expected measurement uncertainty.

particularly for large public companies with a global operating footprint, and accelerating industry momentum, with sectoral bodies pushing for collective commitment and action. For the few climate leaders, such as in Agriculture with the recent joint commitment by the largest companies to COP27 Agricultural Sector Roadmap 1.5°C, they may also be at the forefront of driving sectoral progress.

Exhibit 32: Proportion of researched ASEAN companies with net zero targets by year

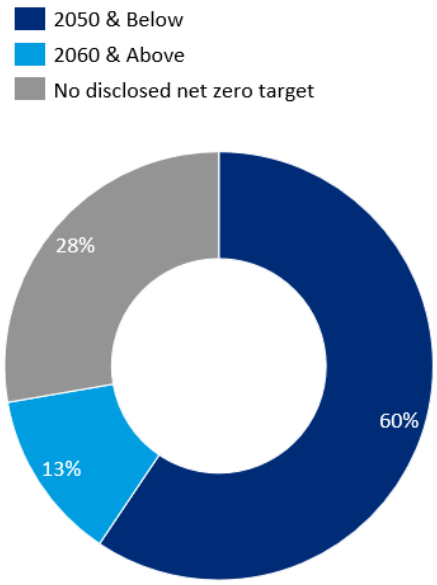
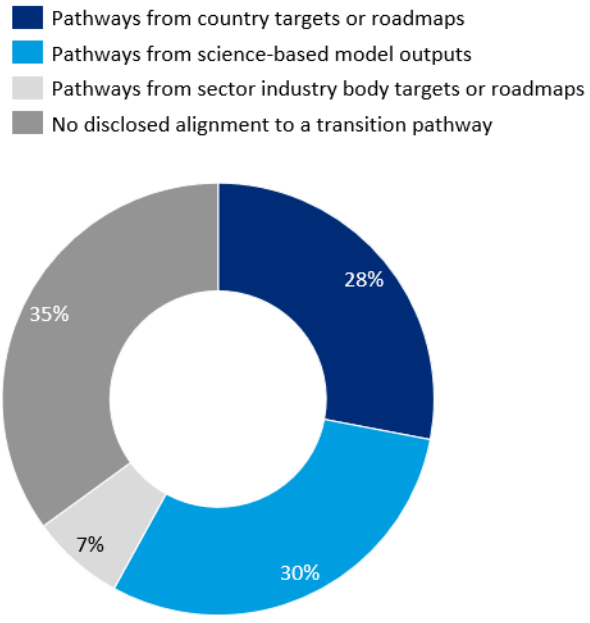


Exhibit 33: Proportion of researched ASEAN companies aligned with transition pathways by pathway type

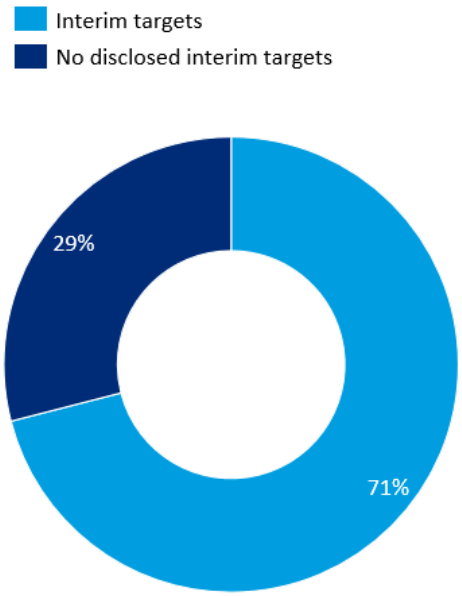


Additionally, more than half of ASEAN companies have interim targets that indicate how they intend to achieve this ambitious transition. Of those with net zero targets, 7 in 10 have explicitly committed to interim targets that illustrate how they intend to align with these pathways over time.

Given that transition is assessed by progress over time, having timebound targets through to the net zero year is a critical element of transition credibility. Companies that have not disclosed a net zero

target year nor any interim targets cannot be meaningfully assessed on their forward-looking progress, which will significantly undermine how credible their transition is.

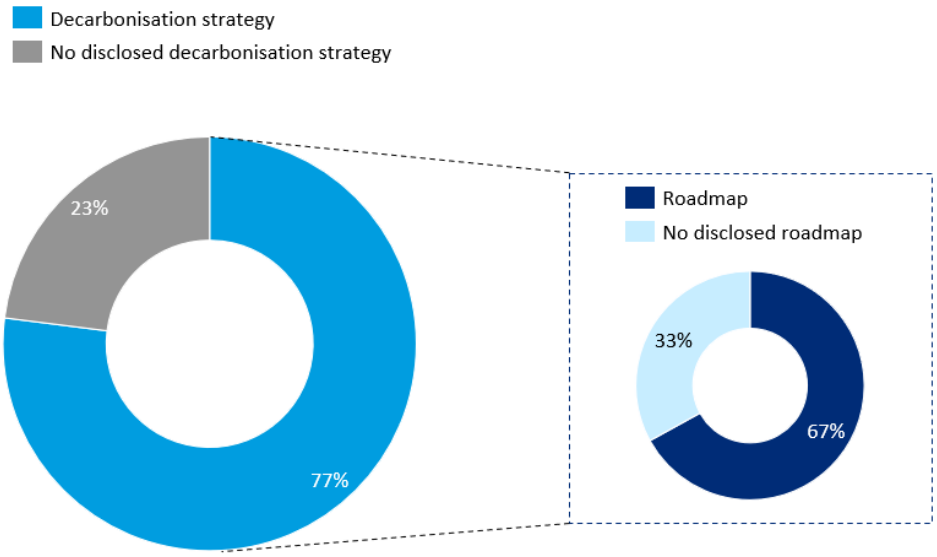
Exhibit 34: Breakdown of companies committed to net zero by whether they have disclosed interim targets in the near-term



C.1.3. Implementation Strategy

While most ASEAN companies have disclosed their broad decarbonisation strategies, their disclosure typically have some specificity on how this translates into action. Of the 8 in 10 companies that have disclosed their main decarbonisation levers, roughly two thirds have publicly disclosed a concrete roadmap that lays out the entity's plan to invest in decarbonisation activities or technologies or otherwise pivot away from emissions-intensive operations. Even so, the level of detail of their action plan can vary significantly, with only a select few climate leaders committing to clear time-bound actions and investments in the near-term, medium-term and long-term.

Exhibit 35: Proportion of researched ASEAN companies with disclosed broad decarbonisation strategy, of which proportion with a specific near-term action roadmap



Notably, more companies are likely to have developed an action plan for internal reference only. From stakeholder consultations, this is attributable in part to the lack of clarity and certainty on the availability of commercially viable technologies, where companies are understandably concerned about the feasibility of future decarbonisation solutions and may not be willing to publicly disclose any commitments in the absence of a clear timeline by which such solutions become commercially viable.

In the absence of an action plan, external parties (e.g., investors) might assess ASEAN companies' past decarbonisation efforts as an indicator for ability to deliver on future action but track records have largely been limited in impact. For track records to hold weight in lieu of a clear near-term action roadmap, they must be of sufficient scale and ambition. While many ASEAN companies have disclosed decarbonisation initiatives, majority have focused on alignment with mandatory requirements or cost saving efficiency improvements. Such activities do not materially lead to incremental emissions reductions beyond business-as-usual operations, and are not considered to be credible indicators of progress. Only a select few advanced companies have robust track records indicative of meaningful climate action. For example, several entities have disclosed trial pilots for commercially viable low emissions technologies and investments in significant efficiency improvements (e.g., asset retrofitting, fleet renewal), as well as assessed and communicated their contribution towards decarbonisation targets.

C.1.4. Disclosure

There are 3 major disclosure standards by which many ASEAN entities have historically reported aligning their public sustainability reporting to. Each represent comprehensive recommendations on high-quality climate-related data disclosure, but fundamentally differ in their focus areas as illustrated in **Exhibit 36**. Given the largely discretionary nature of these standards, entities may also differ in which topics they adhere to and the degree to which they provide all recommended disclosures. This contributes to significant variability in reporting quality across entities.

Exhibit 36: Overview of major climate-related disclosure standards

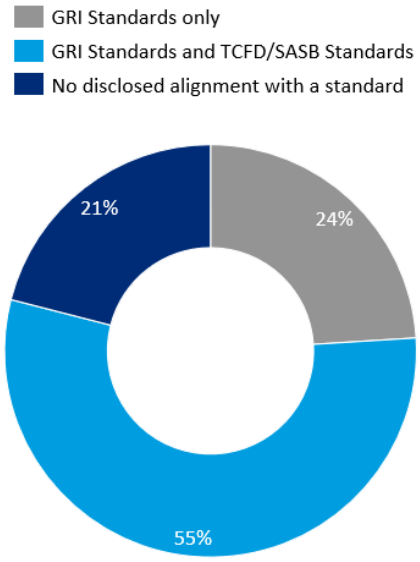
Comparison metric	Global Reporting Initiative Standard (GRI Standards)[91,92]	Task Force on Climate-related Financial Disclosures (TCFD) [93]	Sustainability Accounting Standards Board Standards (SASB Standards)[94,95]
Year of release	2000	2015	2018
Topical coverage	Comprehensive range of ESG issues	Climate-related financial risks and opportunities	Financially material sustainability topics specific to industries
Sector specificity	Available for 6 sectors	Available for 5 sectors	Available for 11 sectors (and 77 industries)
Traction	More than 10,000 companies globally	More than 4,000 companies globally	More than 2,800 companies globally

Insofar as companies align as closely as possible with market-accepted climate disclosure standards, they tend to be more well-recognised as credible. Roughly two-thirds of companies have reported some degree of alignment to these major climate-related disclosure standards, which provides the basis for a more consistent assessment and comparison of entities' climate maturity:

- Roughly three quarters of researched ASEAN companies are aligned with the broader market-accepted Environmental, Social and Governance (ESG) disclosure standard for their sustainability reports (Global Reporting Initiative Standard; GRI)
- Some 55% of researched ASEAN companies have additionally aligned or committed to aligning to more specific climate-oriented disclosure standards like the Task Force on Climate-related Financial Disclosures (TCFD)

[91] Global Reporting Initiative (GRI). The GRI Standards: Enabling transparency on organizational impacts. 2022.
[92] Global Reporting Initiative (GRI). Sector Program. n.d.
[93] Financial Stability Board. TCFD overview. n.d.
[94] Sustainability Accounting Standards Board Standards (SASB Standards). Global use of SASB Standards. n.d.
[95] Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board Standards (SASB Standards). A Practical Guide to Sustainability Reporting Using GRI and SASB Standards. April 2021.

Exhibit 37: Proportion of researched ASEAN companies by disclosure standard alignment[96,97,98]



C.1.5. Key Challenges to Climate Progress

While ASEAN companies recognise the need to evolve with a transitioning world, they face varied challenges that collectively hinder progress, characterised by:

1. Nascency of the climate space
    - Lack of robust data sources or climate-related systems
    - Limited climate-related capabilities regionally e.g., low understanding of how to assess emissions and feasible decarbonisation strategies
    - Complexity of navigating an abundance of guidelines, resources and initiatives that may not be fully interoperable nor directly relevant to ASEAN
2. Potential trade-offs with climate progress
    - Maintaining / maximising profitability and commercial viability of decarbonisation efforts
    - Allocating limited resources across other just transition priorities (e.g., commitment to energy security, climate change adaptation)
3. Structural factors intrinsic to emerging markets
    - Ever-evolving national regulations, ambitions and support
    - Dependence on support from multilateral agencies to drive ambitious change

The latter two types of challenges are reflective of enduring concerns that will be most meaningfully addressed by an all-stakeholder effort, inclusive of government and multilateral actors. What real economy companies can meaningfully address, and what this guidance seeks to support on, is the short-term challenges on capability gaps and mismatched expectations that arise in a rapidly evolving nascent climate space.

[96] GRI: Global Reporting Initiatives.
[97] TCFD: Task Force on Climate-related Financial Disclosures.
[98] SASB: Sustainability Accounting Standards Board.

C.2. Financial Institutions

Financial institutions play a critical role in enabling the transition of the real economy, and many have recognised the importance of channelling financing to credibly transitioning companies. However, investors can differ significantly in their appetite for sustainable finance and how they evaluate and identify credibly transitioning companies. Understanding whether investors value 'transition finance' as an asset class, and if so, how their approaches differ sets the basis of what investors will accept as credible and inform the development of useful guidance for real economy companies.

With the main objectives of understanding (1) investor demand for transition finance and (2) how they evaluate such opportunities, interviews were conducted with a range of international and Asia-based banks and asset owners or managers. This was supplemented by desktop research on publicly disclosed climate commitments and frameworks across different types of financial institutions, including sovereign wealth funds, pension funds and insurers.

C.2.1. Investor Demand for Transition Finance

Investors increasingly view the importance of 'transition finance', given that the most common market-accepted sustainability-oriented financing instruments of today are insufficient to support a world transitioning to net zero. Many investors have focused on financing 'green' activity in the past decade, of which its definition and qualifying criteria have been generally well-established and backed by robust science-based institutions. While this remains critical to global decarbonisation, many investors also recognise that this precludes much of the real economy from realistically accessing such financing – transitioning companies, particularly those operating in hard to abate sectors, will require support to achieve ambitious climate targets and can be no less credible than already green companies.

Currently, interviews with a range of investors did not surface high demand from investors for a strictly defined asset class for 'transition finance'. In order to support transition companies, many investors have already established their own transition finance frameworks, each with varying definitions of 'transition finance' while referring to existing global guidance and standards. While not prevalent, more companies are establishing transition plans which aids these investors in providing financing to these companies.

C.2.2. Investors' Approaches to Evaluating Transition Credibility

Many investors have publicly disclosed climate targets and portfolio steering strategies, which informs their considerations when evaluating real economy companies. International investors have increasingly committed to net zero targets for their financed portfolios, with many publishing their methodology and strategies for achieving such targets publicly. Any new investment, and especially for those that are sustainability-labelled, will come under scrutiny by the degree to which it contributes towards overall progress. At the bare minimum, this pertains to greenhouse gas emissions performance and climate change mitigation of the entity or financing instrument. For example, interviewed international investors often have committed to steering their investments to achieve net zero by 2050 and therefore, show the greatest demand for issuers that can credibly demonstrate ambition that is at least 1.5°C aligned.

Investors' targets and strategies may also reflect other considerations, such as:

- Entity-specific: Just transition concerns, including management of other environmental objectives (e.g., biodiversity, water and waste management) and social considerations

- Whole-of-economy: Strategic financing based on which decarbonisation activities meaningfully supports a global transition– e.g., in a country with a highly emissions-intensive power sector, financing may be best directed first at scaling up renewable energy capacity over investing in the electrification of other sectors
- Specific investment priorities: e.g., National directives from the jurisdictions from which the financial institution is based, strategic opportunities of interest like critical minerals

Investors' assessment approaches are materially aligned with market-accepted standards or initiatives. Investors are keenly interested in adopting an approach to assessing credibility that is robust and interoperable with existing standards, and have often incorporated existing guidance directly in developing their internal climate assessment systems and processes. Many have developed specific quantitative and qualitative evaluation metrics to operationalise the broad principles of existing international guidelines (e.g., climate scoring system based on degree of alignment with pathway, capital expenditure (CapEx) deployment plan, regional considerations).

They also value market-accepted third-party initiatives that provide an additional layer of assurance on the credibility of transitioning real economy companies, such as the Science-based Targets Initiative (SBTi) and the Transition Pathway Initiative (TPI). For some investors, they may directly consider entities that have been verified by or otherwise explicitly demonstrate alignment with specific standards as credible without conducting additional checks on how the standards have been met. Additionally, some investors may seek to obtain Second-Party Opinions (SPOs) from market-accepted providers as part of their credibility assessment of the transition plans of real economy companies.

However, assessment approaches can vary significantly by the degree to which it is bespoke to any given entity. Investors tend to fall along the spectrum of global (i.e., adopting the same consistent approach to all opportunities) to bespoke (i.e., assessing issuers in their individual operating contexts).

For the global approach, investors prioritise consistency across their portfolio in recognition that money has no geographic or sectoral boundaries. In the purest sense, the same emission thresholds and risk tolerance requirements are applied to all investment opportunities to ensure a minimum common standard for credibility. This is also likely easier to operationalise across the institution.

For the bespoke approach, investors prioritise assessing individual nuances in recognition that real economy companies face vastly different headwinds and tailwinds depending on their operating contexts. Factors that influence entities' climate ambition and ability to decarbonise include:

- Commercial viability of decarbonisation strategies e.g., degree to which sectoral progress is reliant on technologies not presently available
- Ambition of local governments and relevant measures i.e., asking companies to outperform the Nationally Determined Contributions (NDC) of the jurisdictions where they operate will be challenging
- Alternative priorities e.g., in developing markets where rapid economic growth is required to raise standards of living, energy demand will necessarily increase and have to be supported in part by traditional but cheaper emissions-intensive fossil fuels
- Dependencies on the operating environment e.g., While many sectors rely on electrification as a key decarbonisation lever, their power consumption mix must first be of no to low emissions for meaningful progress overall

While more investors have expressed a preference for conducting bespoke assessments where possible, this is difficult to operationalise. With limited existing guidance or resources (e.g., regional or national transition pathways from science-based models), investors find it challenging to ensure that transition credibility assessments are standardised and sufficiently robust across all

opportunities. In the interim, many have aligned to a more global standardised approach but remain flexible – broadly, investors are unlikely to strictly enforce any strict requirements so long as the assessed real economy company is transparent and able to clearly articulate why they deviate from the ideal standard.

Investors recognise the importance of dynamism. The climate landscape is rapidly evolving, and real economy companies are not expected to strictly deliver on their plans, particularly in the longer-term. Most investors will prioritise the delivery of near-term activities, but recognise that medium to longer-term plans will and must adapt with changing market conditions and technology. Consequently, investors actively monitor their investments on an annual basis and expect full transparency in the event of any material changes or deviations from initial commitments.

C.3. Implications

One of the key challenges of ASEAN transition finance flows remains the fundamental credibility gap of ASEAN real economy companies.

ASEAN real economy companies must develop more credible climate ambitions and capabilities

To unlock access to significant financing and effectively adapt to a transitioning world, real economy companies must as a minimum demonstrate the fundamental tenets of transition credibility. For the average issuer, this means that they must clearly develop and commit to a Paris Agreement-aligned climate ambition for their material business operations, both in the long term and their interim trajectory. To the extent possible, they must also understand how to achieve these targets and disclose all underlying strategies, processes and other qualities that enable their ability to deliver on these targets.

This guidance will map out the core recommendations for a credible transition as well as provide targeted advice on areas of ambiguity or in need of the greatest capability building (e.g., understanding material sources of emissions).

Additionally, while individual investors will vary in approaches, ASEAN issuers may benefit from prioritising capability development in areas that investors broadly look out for in their assessment approaches. For example:

- Align with investor climate targets and overall strategic priorities where possible: Many investors have publicly disclosed their targets and frameworks; issuers that endeavour to disclose specific details on how they align with investors' approaches will facilitate the assessment process. Real economy companies can also seek opportune financing with investors that have expressed clear strategic interest in select activities, particularly if specific activities may not have an immediate or direct emissions reduction impact (e.g., critical minerals, enabling infrastructure)
- Demonstrate clear indicators of credibility: Where real economy companies specifically align with and/or get verified by third-party market-accepted initiatives (e.g., Science-Based Targets Initiative; see Section 4.2 for more details), this provides a meaningful signal of credibility that investors will weigh favourably in their assessment
- Be transparent: Most investors are keen to assess companies' transition credibility with respect to their local contexts and broadly adopt a holistic assessment where some deviations from their requirements may be accepted, particularly where clearly justified and contextualised by the company (e.g., power companies might justifiably have lower near-term ambition due to national energy security constraints, particularly if paired with a concrete action plan for more ambitious medium to longer-term action that resonate with national power development plans)

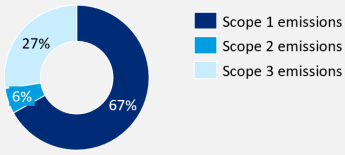
Appendix D. Reference Pathway Augmentation

D.1. Case Studies on Scope of Emissions

Exhibit 38: Case Study on how an entity may adjust a reference pathway to increase the scope of emissions covered[99,100]

Context of illustrative case study
Company A is a producer of crude steel. It is based in Southeast Asia and aims to compare its baseline emissions against a net-zero aligned science-based reference pathway. Company A reports Scope 1 and 2 emissions, but the science-based IEA NZE pathway for the steel sector only covers Scope 1 emissions.

Steel sector emissions by scope
2021, by % of $GtCO_2$

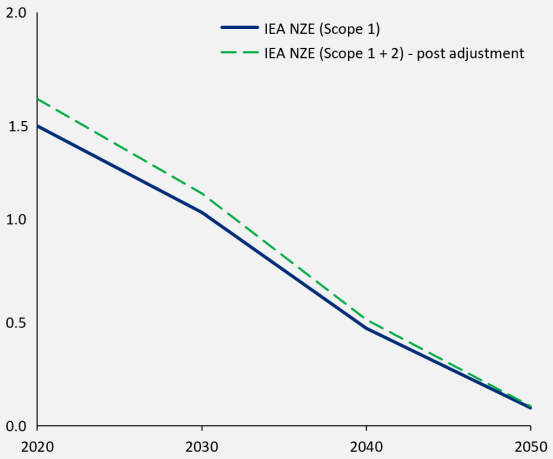


$$\textit{Estimated scope 1+2 pathway} = \frac{\textit{Scope 1 Emissions Intensity} * \%\ \textit{Share of Scope 1+2 Emissions}}{\%\ \textit{Share of Scope 1 Emissions}}$$

$$= \frac{\textit{Scope 1 Emissions Intensity} * (67\% + 6\%)}{67\%}$$

Company A may adjust the IEA NZE steel sector pathway to include scope 2 by utilising the share of emissions by scope in the steel sector, as outlined in the chart and equation above. Given that the adjusted reference pathway is contingent upon the share of emissions across different scopes, it is imperative for Company A to consistently use the most current and accurate data regarding sector-specific emissions by scope. This ensures that the adjusted reference pathway remains reflective of the latest available information.

Result: Steel sector reference pathway by IEA NZE (pre and post-adjustment)
2020-2050, tCO2/t steel



Source: International Energy Agency (IEA)

[99] International Energy Agency (IEA). Global Energy and Climate Model. 2023.
[100] Statista. Distribution of Total Steel Sector Emissions Worldwide in 2021, by Scope. 2021.

D.2. Case Studies on Business Activities

Exhibit 39: Case Study on how an entity may adjust the IEA NZE automotive sector reference pathway to account for new car sales only[101,102,103]

Context of illustrative case study

Bank B aims to assess the financed emissions of its automotive portfolio against a science-based reference pathway. As its portfolio is heavily weighted towards manufacturers and distributors of new cars, it aims to rebase the science-based IEA NZE pathway from full-fleet to new sales to yield a more accurate comparison, as the unadjusted full-fleet pathway takes legacy cars into account, which do not reflect the composition and exposure of Bank B's portfolio.

Example approach

Bank B may rebase the IEA NZE pathway from full-fleet to new sales by using the following equation:

Emissions intensity for a given year = $\sum$ (*Emissions Factor* $*$ % *Split of New Sales by Car Type*)

EEA Emissions Factor per car type (gCO2/vehicle-km)	
ICEV	136
HEV	104
PHEV	34
BEV /FCEV	0

New sales projection by IEA (Global)	2023	2030	2050
ICEV + HEV[1]	82%	35%	0%
PHEV	6%	7%	0%
BEV	12%	55%	90%
FCEV	0%	3%	10%

The emissions factor for each car type is provided by the European Environment Agency (EEA) and may be assumed to remain constant; IEA publishes the global new car sales in 2023 by car type and projects this data for 2030 and 2050 respectively. As IEA does not provide the share of new sales for ICEV and HEV separately, entities will need to estimate the ratio of ICEV to HEV based on their own internal research and justify their assumption accordingly.

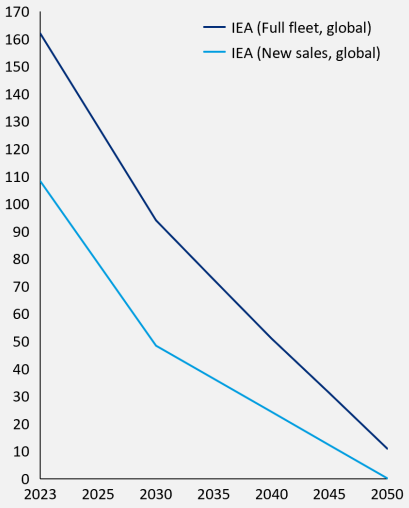
In this worked example, Bank B assume the ratio of ICEV to HEV is 80:20 based on their internal research. This yields the following estimations for share of ICEV and HEV sales in 2030: 35%*80% = 28% for ICEV sales, 35%*20% = 7% for HEV sales. An example for the calculation of the 2030 point of the new sales pathway based on the underlying equation is shown below. Linear interpolation may be assumed for years with no projected data.

Projected emissions intensity for Year 2030 =

$$(136 * 28\%^{1}) + (104 * 7\%^{1}) + (34 * 7\%) + (0 * 55\%) + (0 * 3\%)$$

Result: Global IEA NZE Pathways

2023-2050, gCO2/vehicle-km



Source: International Energy Agency (IEA)

[101] International Energy Agency (IEA). Global Energy and Climate Model. 2023.

[102] European Environment Agency (EEA) is an organisation that collects and validates data from reliable sources to analyse trends and produce policy-relevant analyses on environment and climate topics.

[103] ICEV – Internal Combustion Engine Vehicle; HEV – Hybrid Electric Vehicle; PHEV – Plug-In Hybrid Electric Vehicle; BEV – Battery Electric Vehicle; FCEV – Fuel Cell Electric Vehicle.

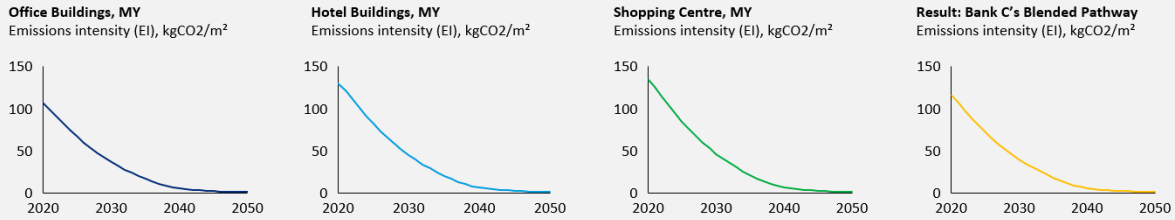
Exhibit 40: Case Study on how an entity may augment a real estate sector pathway by CRREM to reflect its exposure to specific building types[104]

Context of illustrative case study
Bank C aims to assess the financed emissions of its Malaysian real estate portfolio against a science-based reference pathway as part of its net-zero target setting exercise. Its Malaysian real estate portfolio is comprised of developers and operators of various building types, with the distribution as follows: 65% of Bank C's Malaysian real estate portfolio is made up of developers and operators of office buildings, 20% in hotel properties, and 15% in shopping centers.

Example approach: Bank C may use Carbon Risk Real Estate Monitor (CRREM) as a source for its reference pathway as it is science-based and provides specific net-zero aligned pathways by building type and country. Hence, Bank C can construct a science-based pathway that is tailored to its business exposure by weight-averaging pathways based on their building type (see equation below). Note that emissions intensities are added up year on year to construct the blended pathway

$$\textbf{Blended pathway} = \sum(single\ pathway * \%\ exposure)$$

(Office Building Pathway x 65%) + *(Hotel Building Pathway x 20%)* + *(Shopping Centre Pathway x 15%)* = *Bank C's Blended Pathway*



Source: Carbon Risk Real Estate Monitor (CRREM)

[104] Carbon Risk Real Estate Monitor (CRREM) provides net-zero aligned pathways by building type for three countries in ASEAN – Malaysia, Singapore and Philippines.

D.3. Case Studies on Emissions Profile

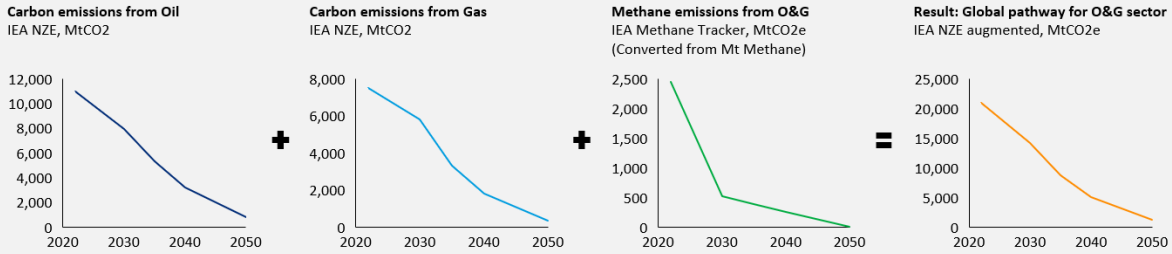
Exhibit 41: Case Study on how an entity may augment a pathway for the oil and gas sector that accounts for methane emissions[105,106,107]

Context of illustrative case study
Company B is an oil and gas company that wishes to compare its baseline emissions against a net-zero aligned science-based reference pathway to evaluate its current performance and set decarbonisation targets. It selects the IEA NZE refence pathway for the oil and gas sector as IEA is a reputable science-based body. However, given the significance of methane emissions from activities in the oil and gas sector, Company B should adopt a reference pathway that reflects this consideration.

Example approach: IEA publishes projections of methane emissions from the oil and gas sector up to 2030 through their IEA Methane Tracker, which is a tool that was developed by them to monitor and analyse methane emissions within the energy sector. To construct a net-zero pathway, entities may assume methane emissions falls to zero by the year 2050 in a linear pattern.

Subsequently, these methane emissions may be converted to carbon dioxide equivalent (CO_2e) using conversion factors provided by the Intergovernmental Panel on Climate Change (IPCC). This conversion is then integrated with the IEA NZE carbon emissions pathways for oil and gas activities to provide a holistic view of emissions within a single pathway. This augmented pathway is derived by summing three distinct pathways (see equation below) that correspond to CO_2e emissions associated with oil and gas activities, thereby offering a comprehensive representation of the sector's emissions profile.

$$Augmented\ Oil\ \&\ Gas\ pathway = \sum(Pathways\ for\ Carbon\ Emissions\ from\ Oil\ \&\ Gas\ Activities)$$



Source: International Energy Agency (IEA), Intergovernmental Panel on Climate Change (IPCC)

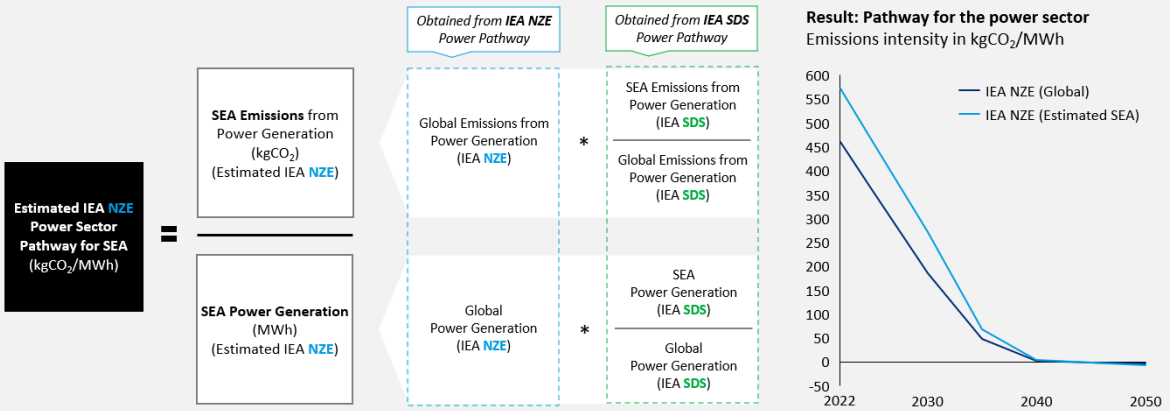
[105] International Energy Agency (IEA). Global Methane Tracker. March 2024.
[106] The conversion factor used in this case study is as follows: 1 Mt Methane = 29.8 Mt CO2e.
[107] International Energy Agency (IEA). Global Energy and Climate Model. 2023.

D.4. Case Studies on Local Nuances and Geographical Coverage

Exhibit 42: Case Study on how an entity may regionalise the global IEA NZE power sector pathway to Southeast Asia (SEA)[108,109]

Context of illustrative case study
Company C is a power generation company that is based in Southeast Asia with power generation plants distributed across the region. It wishes to compare its baseline emissions against a net-zero aligned science-based reference pathway. It selects the IEA NZE refence pathway for the power sector as IEA is a reputable science-based body, but aims to regionalise this global pathway to the Southeast Asian (SEA) context in order to achieve a more accurate pathway that is reflective of local nuances.

Example approach: The IEA Net-Zero Scenario (NZE) pathway may be regionalised to SEA by using the IEA Sustainable Development Scenario (SDS) as a proxy. The IEA SDS provides a science-based pathway for SEA that is aligned with limiting global temperature rise to well below 2°C as per the Paris Agreement. As a result, the ratio of SEA's emissions from Power generation to the World's emissions, and the ratio of SEA's power generation to the World's can be computed for under IEA SDS. These ratios may be assumed to be the same under the IEA NZE scenario and may be used as multiplication factors to estimate the emissions and power generation data for SEA under the IEA NZE (see illustration below).



Source: International Energy Agency (IEA)

[108] International Energy Agency (IEA). World Energy Outlook. October 2021.
[109] International Energy Agency (IEA). Global Energy and Climate Model. 2023.

Exhibit 43: Case Study on how an entity may regionalise the global IEA NZE power sector pathway to Southeast Asia (SEA)[110]

Context of illustrative case study
Company D is a producer of crude steel, with 70% of its crude steel produced (in tonnes of steel) in China and the remaining 30% in steel plants across Southeast Asia (SEA). In the pursuit of developing its transition plans and setting decarbonisation targets, Company D aims to conduct an evaluation of its baseline emissions intensity by benchmarking it against a reference pathway that accurately reflects the geographical coverage of its business.

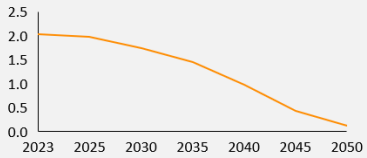
Example approach: Company D may reflect the geographical mix of its operations by weight-averaging the relevant pathways according to the size of their exposures in those geographies. As Mission Possible Partnership (MPP)'s Technology Moratorium pathway for the steel sector has geographical breakdown for China and SEA, Company D may blend these two regional pathways to construct a pathway that more accurately reflects its geographical setup (see equation below).

This approach for blending multiple pathways may be appropriately replicated for pathways that encompass different geographical coverage, provided that these pathways are issued by the same organisation and adhere to the same scenario framework. Specifically, this requires that the pathways align with the same temperature targets, scope of emissions, decarbonisation assumptions and relate to the same sector. By ensuring these conditions are met, the approach can be effectively and consistently applied across various reference pathways with multiple geographical coverage.

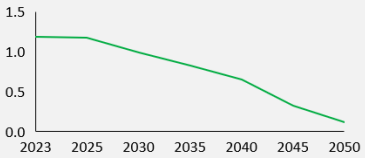
$$\textbf{\textit{Blended pathway}} = \sum(single\ pathway\ *\ \%\ exposure)$$

(China Pathway x 70%)	✚	(SEA Pathway x 30%)	=	Issuer B's Blended Pathway

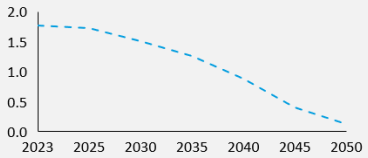
MPP Tech Moratorium (China)
Emissions intensity (EI) in tCO2/t steel



MPP Tech Moratorium (SEA)
Emissions intensity (EI) in tCO2/t steel



Result: Company D's Blended Pathway
Emissions intensity (EI) in tCO2/t steel



Source: Mission Possible Partnership (MPP)

[110] Mission Possible Partnership (MPP). Making Net-Zero Steel Possible. September 2022.

Appendix E. Transition Tiers

E.1. Clarification on Aligned and Aligning Classification for Complex Transition Plans

The ATFG outlines transition tiers based on their anticipated temperature outcomes, not whether the entity receiving the finance is already aligned with reference pathways or is an aligning entity whose current emissions are above the reference pathway, but are credibly planned to reduce in line with the reference pathway. The ATFG takes the position that it is critical for finance to flow to both aligned and aligning companies to enable all their transition plans, and therefore does not distinguish between these entities in the transition tiers.

In assessing whether an entity is Aligned or Aligning, it is noted that an entity's transition plan is unlikely to lead to a smooth, linear decarbonisation from the entity's current emissions to its stated targets (typically first in 2030). In practical real-world scenarios, the trajectory of an entity's transition is likely to exhibit a stepped pattern due to the sequential adoption of lower carbon assets and activities by the entity. Illustrative examples for these scenarios are given in **Exhibit 44.**

In some cases, entities who start above the pathway might decide to invest in green or transitioning assets or activities quickly, causing them to rapidly become aligned with the reference pathway, before making additional investments in later years in future green technologies once they become more commercially viable. For example, illustrative Company A.

Other entities may already be below the reference pathway due to their prior green investments. As they have already made these investments, they might decide to "backload" any further investments in greener technologies until required for compliance to the reference pathway, having the effect of plateauing their emissions intensity at current levels for a period of time. For example, illustrative Company B.

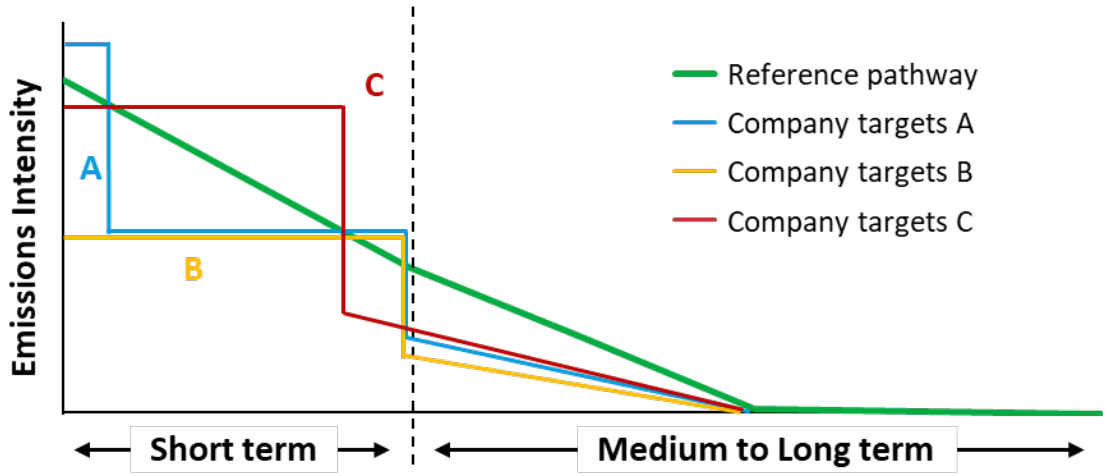
In both of these examples, the entities' targets are on or below the linear trajectory of the reference pathway at most points in time, and hence both entities could be considered as aligned and aligning to the reference pathway. However, in cases where "backloading" of investment in green or transitioning assets or activities results in an entity's targets exceeding the reference pathway for significant amounts of time, the entity should provide rationale and clear evidence to justify why it is infeasible for it to decarbonise sooner. For example, illustrative Company C.

These "stepped" transition trajectories may happen to entities across different sectors. For example, a power generation company who runs coal-fired power plants (CFPP) decides to retire and/or sell all of its CFPP assets, and invests in a mix of gas-fired power plants and renewables. Such drastic initiative would lead to sudden drop of its emission intensity, resulting in a "stepped" drop as opposed to a straight decreasing line.

Financial institutions and investors evaluating entities' planned transition trajectories during decisions on extension of Entity-level Transition Finance should carefully consider the shape of an entity's transition trajectory and how it compares to a relevant reference pathway. They should apply judgement in determining whether an entity should be considered as Aligned or Aligning to a given temperature outcome, considering any justifications provided by entities in their published transition plans. Financial institutions should err on the side of caution. It may be prudent not to consider entities that provide limited justification for any "backloading" of investment in green or transitioning assets or activities as "Transitioning" for the purposes of extending Transition Finance, as the limited justification could be an indicator that the entities' transition plans lack sufficient credibility.

Given this, entities should therefore carefully consider the level of detail that they include in their published transition plans, and provide transparent and comprehensive explanations of their anticipated transitions and how these link to expected emissions.

Exhibit 44: Illustrative examples of stepped transition plans



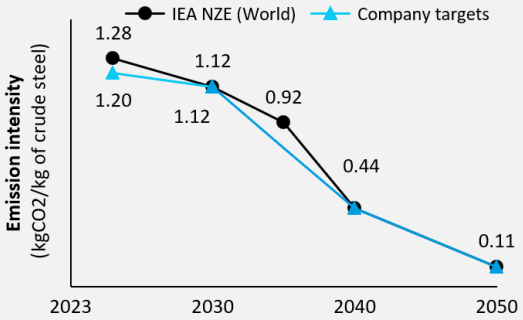
E.2. Case Studies

Exhibit 45: Case study D on how a company may assess their climate ambition (Tier 1: Aligned and Aligning – 1.5C) [111]

Context of illustrative case study
A crude steel producer based in Southeast Asia has developed ambitious transition targets and aims to raise transition-labelled financing, and hence is looking to assess its credibility per guidance principles

How real economy companies that have already developed targets may assess their alignment with guidance principles

Company's climate targets



- Company has developed ambitious transition targets with reference to the **IEA NZE Pathway for Steel (World)**, to:
  - Meet climate expectations of international shareholders and increasingly stringent regulations in the jurisdictions it operates
  - Reflect a comparable trajectory given it operates steel plants across the world
- Therefore, the company has committed to setting **targets** to stay on the pathway through to 2050, which involves decarbonising as a minimum by:
  - **6%** from 2023 to 2030
  - **60%** from 2030 to 2040
  - **75%** from 2040 to 2050

Sub-element	Tier identification principles	Company evaluation
Transition pathway	**Pathway source** Science-based or from government/industry body	Science-based pathway
	Temperature outcome 1.5°C or well below 2°C as a minimum	1.5°C
Transition targets	Remain on or below the pathway*	Demonstrated; as company's targets remain consistently on or below the pathway, it is 'Aligned'
	No targeted increase in intensity*	Demonstrated
ALIGNED AND ALIGNING – 1.5°C *If the company meets all of the other criteria for transition credibility (or otherwise clearly justified for lack of relevance or materiality)*		

*: Principles for companies starting below the pathway

Source: International Energy Agency (IEA)

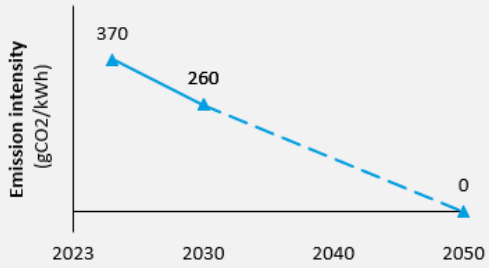
[111] Interim and long-term targets: Decarbonisation trajectory from 2023 to 2050 is linearly interpolated based on 2023 baseline emissions, and 2030 and 2050 targets.

Exhibit 46: Case study E on how a company may assess their climate ambition (Tier 3: Progressing)[112]

Context of illustrative case study
A power generation company operating in Singapore has already developed targets based on Singapore's decarbonisation commitments, and is looking to assess its credibility per guidance principles

How real economy companies that have already developed targets may assess their alignment with guidance principles

Company's climate targets



- Company aims to **support Singapore's climate targets**, of which the following are most relevant:
  - Achieve net zero emissions by 2050
  - Increase solar capacity by 2GW by 2030
  - Improve efficiency of gas plants
- Therefore, the company has committed to the following targets:
  - Net zero by 2050
  - Reduction of emission intensity by 30% by efficiency improvements of current gas plants and developing solar capacity
- The company has also committed to developing medium to long-term targets in the next year

Sub-element	Tier identification principles	Company evaluation
Transition pathway	**Pathway source** Science-based or from government/industry body	✓ Government-published pathway
	Temperature outcome 1.5°C or well below 2°C as a minimum	*Not assessed; no pathway has been selected*
Transition targets	No targeted increase in intensity	✓ Demonstrated
	Setting of targets by near-, medium- and long-term	✓ Demonstrated with interim 2030 target and commitment to set longer term targets

PROGRESSING
If the company meets most but not all other criteria and commits to addressing any material omissions in the next 2 years

Source: National Climate Change Secretariat Singapore

[112] Interim and long-term targets: Decarbonisation trajectory from 2023 to 2050 is linearly interpolated based on 2023 baseline emissions, and 2030 and 2050 targets.

Appendix F. Transition Plan Development and Target Setting

F.1. Case Studies

Exhibit 47: Case study F1 on how a company can get started on selecting a transition pathway and target setting[113,114,115, 116]

Context of illustrative case study
A power generation company operating in Southeast Asia is looking to develop sufficiently ambitious transition targets to meet increasing stakeholder expectations, and may reference guidance principles

How a real economy company may select a transition pathway and set targets with reference to guidance principles

Sub-element	Guiding principles	Company considerations	Decision point
Transition pathway	**Pathway source** Science-based or from government/industry body	A **science-based** reference trajectory would best meet the expectations of international shareholders and climate bodies	**IEA SDS Pathway for Power (ASEAN)**
	Temperature outcome 1.5°C or well below 2°C as a minimum	A **well below 2°C** aligned trajectory is most feasible, given its high baseline emissions and understanding of regional ambition	
	Level of specificity Reflective of their individual circumstances by geography and sector	A representative pathway should be specific to the **Power** sector in **ASEAN**, since the company only operates power generation plants in ASEAN	
Transition targets	**Metric type** Absolute emissions or emission intensity	**Intensity targets** is the most practical, as it enables the company's ambition to grow its business and is less volatile / sensitive to fluctuations in annual activity	**Company emission intensity targets** gCO_2/kWh IEA SDS (ASEAN) — Company targets 760 524 546 377 127 23 Parallel decarbonisation through to 2030 – qualifies as 'Aligning' 2023 2030 2040 2050
	Interim targets (intensity) • Differentiated by near-term, medium-term and long-term milestones • Convergence with pathway by 2050 • Companies starting above the pathway must decarbonise in parallel as a minimum • Must represent reduced intensity over time	• Company commits to converging with the pathway by 2050, but decides that it can only commit to a **2030 target in the interim**, given limited visibility on viable longer-term decarbonisation strategies • As the company starts above the IEA SDS pathway, it needs to decarbonise by **31%** as a minimum from 2023 to 2030 in parallel with this trajectory by guidance principles	

ALIGNED AND ALIGNING – WELL BELOW 2°C
If the company meets all of the other criteria for transition credibility (or otherwise clearly justified for lack of relevance or materiality)

Potential use of tools

- The company's overall 2030 target represents a composite of the emissions performance of all its future activities
- Given that the company's choice of transition pathway aligns with a similar regional well below 2°C ambition as in the **ASEAN taxonomy**, it may refer to its **thresholds for transitional activity** (i.e., Amber Tiers 2 and 3) to better understand **what type of activities and respective performance levels** are required to achieve and therefore affirm the feasibility of its 2030 target.
- Users may refer to **Case Study C2** for more details on how this company may reference these tools to develop an action plan.

Source: International Energy Agency (IEA)

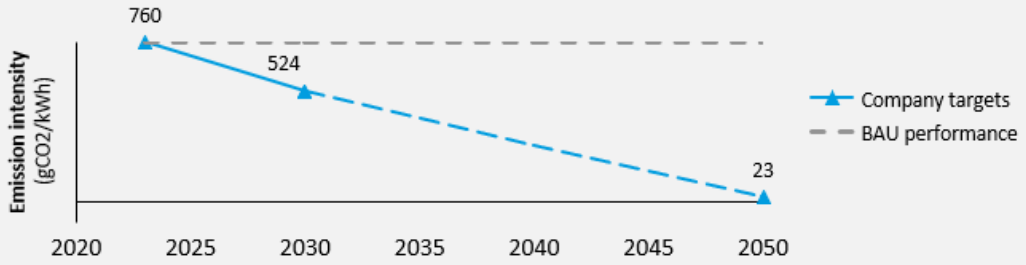
[113] SDS (ASEAN) Scenario for Power: Pathway developed by the IEA.
[114] IEA SDS (ASEAN) Emission intensity: 2023 data point is linearly interpolated based on 2020 and 2030 data points.

Exhibit 48: Case study F2 on how the taxonomy and other tools can be used to support in action plan development

Context of illustrative case study
A power generation company operating in Southeast Asia is looking to develop an action plan to achieve its ambitious climate targets, and reference existing tools

Company profile

- Power generation company currently operating 1 GW of newly commissioned coal-fired power plants in ASEAN
- In the absence of any action, the company will maintain its current emissions intensity through to 2050 and will need to take significant action to achieve its ambitious targets (see Case Study B1 for how this was developed)



This company may refer to existing tools to support its development of an action plan to achieve its 2030 and 2050 targets, such as the ASEAN Taxonomy:

1. Understand what activities are transition-aligned through to 2030 and might serve as potential decarbonisation strategies

By referencing ASEAN Taxonomy Plus Standard for Electricity, Gas, Steam and Air Conditioning, the company may identify the following transition-aligned activities as potential near-term decarbonisation strategies:

Taxonomy tiers (2023-2030)	Transition-aligned electricity generation activities
Green tier	• Solar PV or concentrated solar power • Wind • Ocean energy • Low emissions hydro or geothermal energy
Amber Tier 2 & 3	• Fossil gas • Bioenergy

2. Evaluate the emissions impact of each activity

The company may cross-reference existing science-based reports to estimate the impact of investing in these transition-aligned activities e.g., from IPCC AR5:

Type	Emission intensity ranges (gCO2/kWh)	
	Direct (Scope 1 / 2)	Lifecycle (Scopes 1, 2 & 3)
Solar PV	0	18 to 180
Fossil gas	350 to 490	410 to 650

[115] Company's emission intensity targets: decarbonisation trajectory between targets is linearly interpolated.
[116] Although the company in this case study is consistent with a Well Below 2°C pathway under the ASEAN Taxonomy, 1.5°C pathways are also featured in the ASEAN Taxonomy and correspond to the Green Tier.

3. Develop decarbonisation strategies to achieve its interim targets

The company may evaluate how much capacity and in which transition-aligned activities is required to achieve its emission intensity targets, based on its current starting point. For example, to meet its 2030 target:

Strategy	Required capacity by 2030
A. Invest only in Green tier activities (e.g., Solar PV)	At least 900 MW (or approximate doubling of current capacity)
B. Invest only in Amber tier activities (e.g., best-in-class fossil gas)	At least 2 GW (or approximate tripling of current capacity)

4. Evaluate potential implications to identify the most suitable strategy

Asset lifespan

Where the company decides to invest in transitional emission-intensive assets, as with Strategy B, it should also consider the lifespan of such assets and how it affects the company's longer-term decarbonisation trajectory.

All else constant, in Strategy B, to adequately 'offset' the emissions intensity of the 2 GW of new gas plants built by 2030 to meet the 2050 net zero target, the company needs to:

- Invest in approximately **40 GW** no to low emission Green tier activities by 2050 OR
- Invest in appropriate abatement technology retrofitting for these 2 GW of gas plants

Oher considerations

Any strategy must also be considered cohesively with other priorities and constraints, e.g.:

- Overall energy demand in the jurisdictions that the company operates informs the degree to which low-emission power generation capacity can be scaled
- Technological considerations and infrastructure readiness can influence the relative attractiveness of select activities (e.g., intermittency of renewable energy)

5. Develop an action plan to implement these strategies

Refer to Section 4.3.1.1 on more guidance on suggested actions.

Methodological assumptions

This case study is derived from direct emission intensity factors from IPCC on unabated coal (760gCO2/kWh), most efficient combined cycle gas (350gCO2/kWh) and solar PV (rooftop / utility; 0 gCO2/kWh) and utilization factors from the International Energy Agency (IEA) Sustainable Development Scenario (SDS) for unabated coal (61%), unabated natural gas (43%) and renewables (32%).

Source: IEA Sustainable Development Scenario (SDS), IPCC AR5

Appendix G. Summary Checklist

To qualify for Tiers 1 and 2, companies should meet all criteria or provide clear justification where any criteria may not be met (e.g., if it is irrelevant to the specific financing instrument). For Tier 3, companies should meet most criteria for all sub-elements, or all criteria for most sub-elements other than Independent Verification, and demonstrate a plan to address any remaining gaps within the next 2 years.

		Checklist of actions by transition tier		
Element	**Sub-element**	**1. Aligned and Aligning – 1.5°C**	**2. Aligned and Aligning – Well below 2°C**	**3. Progressing**
Climate Ambition	Current state assessment	• Identify and report GHG emissions from material parts of the entity's business model • Include all material sources of emissions - Scopes 1, 2 as well as 3 where material, from identified business segments • Select and justify emissions metrics to quantify the entity's current state (i.e., use of absolute or intensity) • Disclose use and impact of carbon credits, if applicable		
	Transition pathway	• Select level of global warming ambition aligned with 1.5°C temperature outcome	• Select level of global warming ambition aligned with well below 2°C temperature outcome	• Select a science-based reference pathway, or country or industry body-led commitments with a clear rationale • Disclose characteristics of pathway (e.g., global warming ambition) and any additional assumptions in interpreting existing commitments into a pathway
		• Select a reference pathway to inform the decarbonisation trajectory; this should ideally be science-based and may be region-specific where relevant		
		• Selected reference pathway may be augmented to better reflect the entities' business nuances		
	Transition targets	• Set targets that demonstrate how the entity will transition from its current state to align with the choice of transition pathway, with the following conditions:		Set targets that demonstrate how the entity will transition from its current state to align with the choice of transition pathway, where the plan must result in reduced absolute emissions or emissions intensity

			Checklist of actions by transition tier		
Element	**Sub-element**		**1. Aligned and Aligning – 1.5°C**	**2. Aligned and Aligning – Well below 2°C**	**3. Progressing**
			– Absolute emissions targets must show a decarbonisation trajectory equivalent or more ambitious to the reference pathway through to their net zero year – Emission intensity targets must converge with the selected transition pathway by 2050 and in the interim: o Companies starting above the pathway must decarbonise in parallel as a minimum o Companies starting below the pathway must remain on or below the pathway • Plan must result in reduced absolute emissions or emissions intensity		
Robustness of Ability to Deliver	Implementation strategy	Action plan	• Detail a roadmap with broad nature of activities and specific actions the entity intends to take to achieve its transition targets, with the following conditions: – Differentiation by near-term, mid-term and long-term actions aligned with target milestones – Evaluation of impact of each action towards said targets		
		Capital allocation plan	• Establish the financial requirements to execute the action plan and achieve the entity's climate ambition • Detail how the company plans to fulfil financial requirements, including internal and external financing sources		
		Risk assessment and mitigation	• Identify climate-related opportunities and risks under different climate scenarios, and disclose relevant strategies to manage the needed changes • Identify key assumptions underlying the entity's action and capital allocation plan, and assess delivery risks that may limit the entity's ability to achieve their targets		
		Ongoing monitoring	• Develop organisation- and activity-level processes to track ongoing progress against transition targets and adapt strategies accordingly		
		Governance	• Establish how the company's board or key decision-makers approves and oversees its transition targets and implementation strategy • Establish the management structure for execution of the implementation plan • Align incentives or remuneration for senior management with climate objectives where relevant		

		Checklist of actions by transition tier		
Element	**Sub-element**	**1. Aligned and Aligning – 1.5°C**	**2. Aligned and Aligning – Well below 2°C**	**3. Progressing**
		• Develop climate capabilities across the organisation, through hiring skilled talent and providing climate-oriented resources and training • Incorporate climate focus into systems and culture		
	Disclosure	• Disclose where the company has demonstrably accomplished the key principles for Climate Ambition and Implementation Strategy; where there are concerns on confidentiality, public disclosure may be on a higher level with full disclosure reserved for external verification and relevant financing stakeholders • Report performance at least on an annual basis or in the event of any material changes		
	Independent verification	• Seek independent external verification on the credibility of the entity's sustainability-related metrics and targets, as well as its implementation strategy		
	Just transition considerations	• Disclose how the entity has accounted for just transition considerations, including an assessment of impact on key environmental and social concerns from business activity where reasonable		

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