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Singapore Sustainable Finance Association

Guidance for

Leveraging the Singapore-Asia Taxonomy in Green and Transition Financing

Prepared by the Singapore Sustainable Finance Association

Acknowledgements

This guidance was developed by the Taxonomy workstream of the Singapore Sustainable Finance Association (SSFA), with inputs from workstream members, and reviewed by the SSFA Executive Committee (EXCO).

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This document does not necessarily represent the views of the Workstream Co-leads, any individual member of the workstream, or the SSFA EXCO.

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Executive summary

Southeast Asia's public and private sectors are making significant strides in the climate transition, creating opportunities for financiers to direct capital towards credible green and transition activities. While green activity definitions are globally recognised among international taxonomies as contributing to outcomes aligned with the Paris Agreement, or with a 1.5-degree science-based pathway, the concept of transition continues to evolve. It is therefore necessary for a clear and consistent definition of what constitutes a credible transition to guide financial institutions and the real economy in channelling capital towards meaningful transition initiatives in the region.

To that end, the Monetary Authority of Singapore (MAS) in December 2023 launched the Singapore-Asia Taxonomy for Sustainable Finance (SAT). The SAT details thresholds and criteria for green and transition activities that contribute to climate change mitigation across eight focus sectors. As the first multi-sector taxonomy globally to include a transition category, the SAT seeks to promote transition financing and catalyse transition activities.

In just over a year since its launch, the SAT has seen encouraging adoption. Financial products have been developed based on it, and banks and companies have aligned with or referenced the SAT in their sustainable finance frameworks.

With this guidance, the Singapore Sustainable Finance Association (SSFA) hopes to further the SAT's adoption by addressing practical challenges faced by financiers and borrowers when applying the SAT in green and transition financing instruments. While our guidance primarily focuses on transition, several sections[1] offer guidance on applying SAT Technical Screening Criteria (TSC) for both green and transition activities.

The structure of this guidance is as follows:

Part 1

- **Section 1** provides guidance on addressing data availability challenges, recognising situations in which specific data points needed to meet green or transition thresholds are not readily available.
- **Section 2** outlines the treatment of interim amber thresholds and sunset dates.
- **Section 3** establishes grandfathering provisions, applied as the TSC is revised.
- **Section 4** presents practical approaches for meeting entity-level transition plan requirements.
- **Section 5** clarifies the distinction between amber and amber (measures) to guide financiers in their practical applications.

Part 2

The guidance also provides early industry thinking on how financiers and borrowers can reference the SAT to recognise transition efforts. In these instances, financiers and borrowers may still explore transition financing under their respective sustainable or transition financing frameworks. It should be noted that such transactions will not be considered SAT-aligned.

- **Section 6** outlines how certain non-aligned financing instruments might qualify for transition financing through referencing the SAT, notwithstanding that the underlying assets or projects cannot fulfil all criteria under the SAT due to reasons beyond the borrower's control, or where some criteria may not be fully relevant for the asset or project being financed.
- **Section 7** presents alternative approaches to address the limited commercial availability of carbon capture and storage (CCS); and carbon capture, utilisation and storage (CCUS) solutions.
- **Section 8** provides guidance on transition financing for new assets not currently referenced in the SAT.

[1] The following sections apply to both green and transition activities: 1) Demonstrating alignment with the TSC in the absence of required data, 3) Grandfathering rules and provisions in the SAT, 6) Transition financing referencing the SAT where the projects do not meet all the TSC, and 9) Recognising enabling and value chain activities that support green and transition activities in the SAT.

- **Section 9** explores whether enabling and value-chain activities that support green and transition efforts can be considered for green and transition financing.

Each section follows a consistent structure: providing context of the challenge, addressing key questions, offering detailed responses and illustrating through Case studies.

Second-Party Opinion (SPO) providers and industry associations participated as working group members in the production of this guidance to ensure the approaches set out are credible and accepted as industry best practices.

The following key terms used are defined as such:

- Financiers: Refers to financial institutions, including banks, institutional investors and other entities that provide capital for projects and assets.
- Borrowers: Refers to companies, project developers or other entities seeking financing for their assets or projects.
- SPO provider: Refers to a third-party environmental, social and governance (ESG) expert that provides an independent opinion on the alignment of sustainable finance instruments with the relevant industry standards and principles.

Part 1:

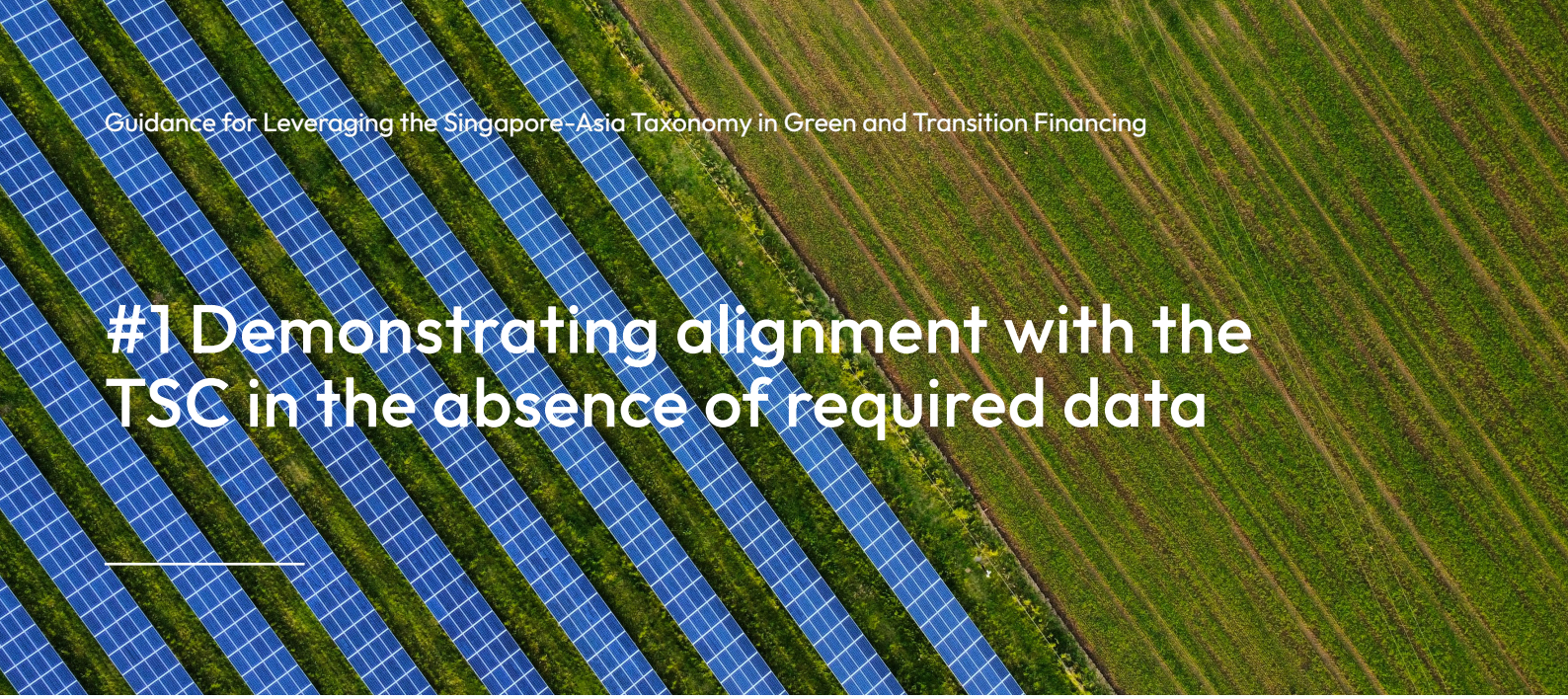
#1 Demonstrating alignment with the TSC in the absence of required data

#2 Navigating the amber TSC and labelling post sunset

#3 Grandfathering rules and provisions in the SAT

#4 Assessing entity-level transition plans

#5 Distinguishing between amber and amber (measures)



#1 Demonstrating alignment with the TSC in the absence of required data

Most of the TSC outlined in the SAT require borrowers to provide specific data points and/or document evidence to demonstrate how the SAT-aligned activity is transiting towards a green pathway (for amber activities) and/or how it is already meeting the green pathway (for green activities).

However, data points and/or documented evidence may not be readily available in some scenarios. These might include:

1. Existing assets: Resource constraints or a lack of measured data points for existing assets (e.g., the borrower has not measured the lifecycle GHG emissions of its energy generation process)
2. New assets: The asset is still in the design or construction phase, whereas the TSC requires operational data
3. Asset acquisition: The borrower is raising money to acquire an asset not under its management
4. Forward-looking TSC: The TSC apply to a future date
5. Value chain position: The borrower's involvement is higher in the value chain, and it does not have control over downstream operational data to which the TSC applies

Questions & responses

Can proxy data or documentary evidence be used/provided?

Financiers may curate a list of acceptable proxy data or documentary evidence that borrowers may provide upfront to demonstrate how the criteria are met.

What would be the acceptable approach for such data or evidence?

Financiers should make an assessment and document if it is reasonable for proxies to be used and if the proxies used are credible. They should also engage with external parties as appropriate.

The proxies used should take reference from internationally or nationally recognised databases that are deemed credible in the relevant sector(s). Such proxy data or documentary evidence may include lifecycle greenhouse gas (GHG) assessments, technical design specifications, sustainability certifications, feasibility studies, environmental impact assessments or other applicable technical reports.

SSFA recommends these be independently reviewed, verified or audited by a reputable third party. When third-party verification is not

conducted, especially for internally prepared documents, obtaining borrower attestation is strongly recommended as a form of representation and warranty.

The borrower or financier should also document and disclose, as appropriate, the source of the proxies used and the rationale, including key assumptions and references made.

Financiers should also ask when operational data will be available.

Post-financing, it is recommended that the financier continues to work with the borrower to obtain actual and ex-post data to ensure the appropriateness of the proxies used.

What kind of proxy data or documentary evidence can be used to demonstrate alignment with the TSC?

Below is a non-exhaustive list of references for proxies. Borrowers may also take reference from The International Capital Market Association (ICMA)'s Methodologies Registry. Third-party data from expert consultants deemed credible can be referenced too.

Database	Data types
Generic databases	
Intergovernmental Panel on Climate Change	Climate, socio-economic and environmental data
GHG Protocol	Framework to measure and report GHG emissions
Climate TRACE	GHG emissions data for every country, state/province and major individual source of emissions in the world
Sector-specific databases	
Energy Global Energy Monitor/ International Energy Agency	Development and analysis of data on energy infrastructure, resources and uses
G-RES	GHG emissions from reservoirs
Oil & Gas (O&G) API Compendium	Guidance on how to calculate GHG emissions for O&G companies
Steel World Steel Association	Overview of the steel sector, including GHG emissions at a company level or on site (voluntary basis)
Transport GLEC Framework	Universal method for calculating logistics GHG emissions across road, rail, air, sea, inland waterways and transshipment centres
Multi-sector Singapore Emission Factors Registry	Over 200 emission factors for Singapore businesses, facilitating their GHG emissions accounting and reporting for scope 1, 2, and 3; currently encompasses eight categories: building equipment, building materials, fuel, GHG, land transport, purchased energy, waste and water

Case studies

Scenario 1

Existing assets – Resource constraints or a lack of measured data points

A borrower seeking to finance a hydropower project may lack technical documentation to verify a hydropower plant's GHG emissions intensity levels, but may rely on the G-RES tool (which is publicly available and recommended by the Climate Bonds Initiative) or other reliable sources for proxy data. If G-RES data confirms that GHG emissions intensity levels meet the TSC for hydropower, the financier may rely on this to classify the financing as green.

Scenario 2

New assets – The asset is still in the design or construction phase

A borrower developing an extension (e.g., building of additional generation units) to an existing power plant will not have a technical assessment report at the point of financing. To demonstrate its commitment to the TSC, the borrower may produce a confirmation to the financier that the expansion will:

- Adhere to the technical specifications of the existing plant,
- Consume the same or greener feedstock, and
- Follow operational procedures that are materially aligned with those of the existing plant.

This confirmation should be signed off by the borrower's senior management.

Failure to provide evidence of a technical report confirming GHG emissions levels at the review event after the loan is signed should result in a declassifying of the financing as green or transition.

Scenario 3

Asset acquisition – The borrower is raising money to acquire an asset

A borrower is seeking financing to acquire an existing cement manufacturing plant and retrofit the plant to meet the TSC. The borrower may not be able to provide the data required at the point of financing as it may have limited information on the plant at the pre-acquisition stage.

The financier should request a commitment from the borrower to assess the plant's operational data and alignment with the TSC following the acquisition. If the operational data does not meet the green or amber criteria, the financier should request a transition plan. In the absence of such a plan, the financier should declassify the financing instrument.

Scenario 4

Forward-looking TSC – The TSC apply to a future date

When financing a new Direct Reduced Iron steel plant for transition, the facility must demonstrate that it "has been designed to and is implementing all necessary actions to meet criteria for" the green category by 2030. The facility can be designed to be 100% hydrogen-based by 2030, but currently uses a mix of natural gas and hydrogen.

The financier should require the borrower to:

- Provide a timeline for the transition of the plant
- Provide evidence or commitment of transition through a hydrogen supply agreement
- If the borrower's operational data after 2030 does not meet the green or amber criteria, the financier should request for a transition plan. In the absence of such a plan, the financier should declassify the financing instrument.

Scenario 5

Value chain position – The borrower's involvement is higher in the value chain

A financier funds the production of feedstock for a biomass power plant, but is unable to provide the operational data on the power plant's GHG emissions. The financier should require the borrower to:

- Provide industry benchmarks or emission factors of biomass power plants as evidence that GHG emissions profiles would be meeting the TSC, or
- On a best-effort basis, borrowers can establish data sharing agreements with the downstream operator (the power plant) to provide the required data within a certain period.

#2 Navigating the amber TSC and labelling post sunset

The amber category under the SAT refers to activities that are either transitioning towards green within a specified period or enabling significant GHG emissions reductions in the short term. To ensure transition thresholds are credible and foster corporate progress towards green activities, the SAT has set:

(i) Sunset date(s) to ensure transition remains time-bound, and
(ii) TSC that are increasingly stringent towards the sunset dates, to ensure progress on a climate-aligned pathway.

This forward-looking and time-bound nature of the TSC creates challenges for financiers and borrowers, as providing credible evidence for future data points or commitments can be difficult. The section addresses three such scenarios:

1. At the time of financing
2. Throughout the financing lifetime
3. Treatment of a qualifying asset/project upon sunset

Questions & responses

At the time of financing, what constitutes industry best practice to adequately demonstrate that an activity will meet future amber criteria (e.g., 2030 and 2035)?

Borrowers should demonstrate alignment with the prevailing TSC at the point of financing. If there is a lack of data, financiers and borrowers can refer to Section 1. Thereafter, it is recommended that the financier conduct a review event when appropriate to assess if the borrower meets the evolving thresholds when the data becomes available.

To demonstrate that an activity can meet future criteria, financiers may adopt a risk-based approach in assessing borrowers' plans to meet future thresholds.

SSFA recommends that a borrower provide a science-based climate transition plan that has been independently validated, where feasible, with the project financed being part of such transition plans.

Forward-looking information should be accompanied by the methodology and assumptions used, and data points should be verifiable.

Throughout the financing lifetime, are interim criteria binding? Is there flexibility in meeting the interim criteria? How frequently should progress toward meeting future criteria be tracked? Is there a grace period for non-compliance with the interim criteria?

Recognising that the path to net zero is non-linear, a financier may offer a borrower flexibility in meeting the interim criteria. Such flexibility could come in the form of a reasonable grace period (recommended 12-36 months) for the borrower to demonstrate clear progress toward meeting those criteria.

Borrowers should have time-bound plans and projections for meeting subsequent TSC, and financiers should engage with borrowers annually or when a material event occurs to ensure no material deviations from technical specifications agreed upon at the point of financing.

Existing financing may continue to be classified as transition throughout the instrument's tenor, till the sunset date, if the above is fulfilled.

Post the sunset date, what happens to the transition classification?

SSFA recommends inserting a clause in relevant documentation stating that the facility is no longer classified as transition after the sunset date.

After the sunset date, no new or existing assets can be recognised as transition. Any new financing or refinancing must meet the green criteria.

Case studies

Financing an energy generation asset

For the energy sector, the interim adjustment occurs in 2031; and the sunset date is 2035.

Table 1: Thresholds for electricity generation activities (in gCO_2e/kWh)[2]

	2023-2030	2031-2035	2036-2040*	2041-2050*
Green (lifecycle emissions)	≤100	≤100	≤90	≤50
Amber (direct emissions)	≤220	≤150	N.A.	N.A.
Ineligible activities	>220 Exclusions: All solid fossil fuels (e.g., coal, petcoke, lignite)	>150 Exclusions: All solid fossil fuels	>90	>50

*Thresholds beyond 2035 are indicative but may be subject to change based on new technologies or evolving scientific views

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, Table 1, page 31.

At the time of financing

If financing takes place in 2026, the borrower should be able to demonstrate the asset has met the amber TSC requirement of ≤220gCO_2e/kWh direct emissions for 2023-2030. This can be based on prevailing or historical data, or evidence (e.g., technical due diligence report) showing it will meet this requirement by 2030.

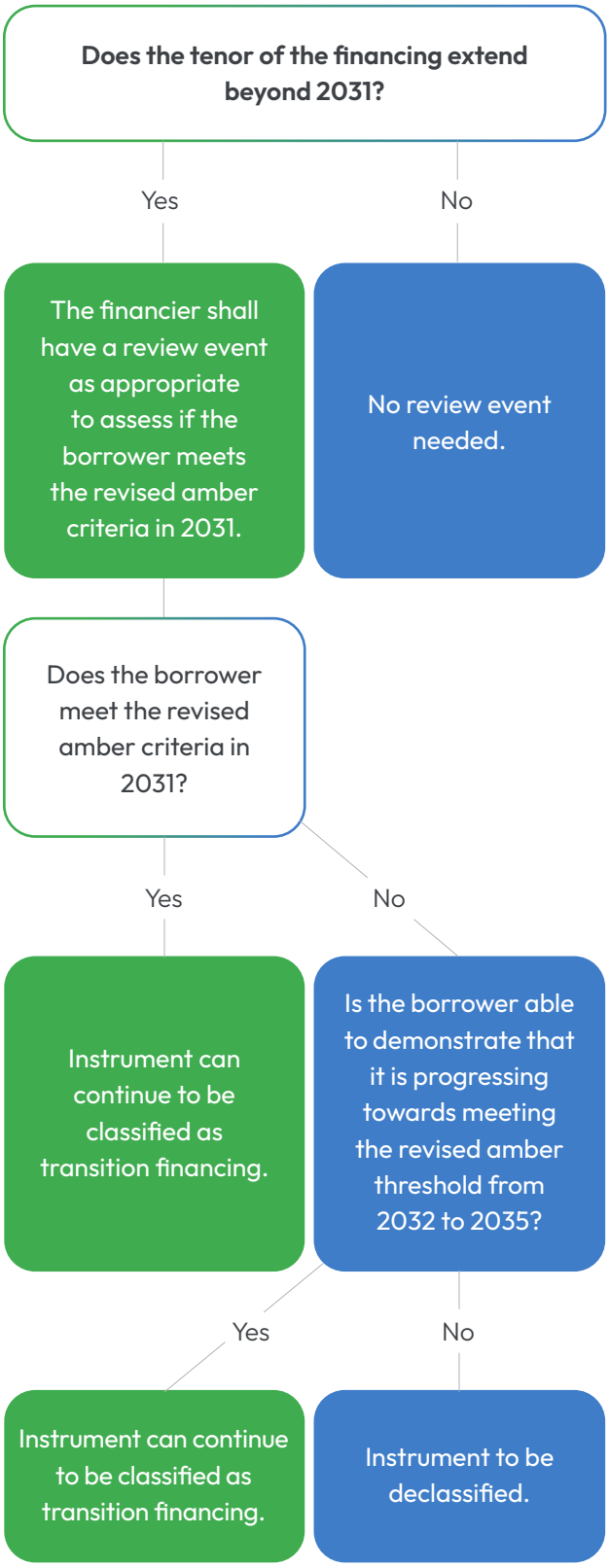
[2] Grams of carbon dioxide equivalent emitted per kilowatt-hour of electricity generated, a measure of GHG emission intensity

Throughout the financing lifetime
If the tenor of the financing extends beyond 2031, the financier should consider how the borrower will meet the ≤150gCO_2e/kWh direct emissions threshold from 2031 onwards. Financiers should have a review event, when appropriate, to assess if the borrower meets these revised criteria when the data is available, while engaging the borrower annually.

If the asset does not meet the required threshold in 2031, the financier may grant a grace period while engaging the borrower annually. This is provided the borrower can demonstrate progress toward meeting the interim threshold from 2032 to 2035, and ultimately meet the green criteria of ≤100gCO_2e/kWh lifecycle emissions post the sunset date.

Treatment of a qualifying asset/project upon sunset
From 2036 onwards, if the asset meets the green criteria of ≤100gCO_2e/kWh lifecycle emissions the asset can be recognised as green. If not, the asset should not be recognised as green or transition.

Figure 1: Determining loan classification when financing an energy generation asset



Financing a combined cycle gas turbine

Table 2.2: Thresholds for a CCGT (in vol%[3])

	2023-2028	2029-2032	2033-2035
Amber (measures), representing CCGT technological readiness for hydrogen or its derivatives	30	50	100*

New plants need to meet the thresholds set out in the amber measures table. For e.g., CCGTs that secures financing from 2029 need to be 50% hydrogen-ready at the onset.

**However, the proposed threshold of 100% vol from 2033 is intended to be read as forward guidance for countries like Singapore which are alternative energy disadvantaged. Singapore's ability to tap on low-carbon hydrogen to decarbonise will depend on the availability and security of low-carbon hydrogen supply chain in the future, given that we are alternative energy disadvantaged and would not have excess renewable energy to produce low-carbon hydrogen domestically. Furthermore, as 100% hydrogen-ready CCGTs (utility scale) are still being developed, it is uncertain whether such CCGTs can also run on natural gas for baseload generation to meet Singapore's energy demand before hydrogen supply is available, or as a backup fuel option in case of hydrogen supply disruption. Hence it may not be feasible for companies to deploy 100% hydrogen-ready CCGTs before hydrogen supply is ready in Singapore. For 2033-2035, the deployment of new 50-100% hydrogen-ready CCGT would be provided as a forward guidance by EMA, based on when we expect utility-scale units to be available with acceptable reliability, efficiency, and baseload compatibility with natural gas.*

For CCGTs that had secured financing before the thresholds were ratcheted up in 2029 and 2033, the plants will have to demonstrate that they have an entity level target to retrofit and be 100% ready no later by 2035 if not earlier. The 2035 timeline to complete retrofitting is not applicable to countries like Singapore which are alternative energy disadvantaged. Singapore recognises the importance for companies to commit to retrofit the CCGT to be 100% hydrogen-ready to meet Singapore's net-zero commitment. Given the constraints mentioned above, the timeline to retrofit to 100% hydrogen-ready for Singapore CCGTs will be based on EMA's forward guidance, e.g. through Singapore's Emission Standards, when EMA requires CCGTs to be retrofitted to 100% hydrogen-ready with baseload compatibility with natural gas.

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, Table 2.2, page 32.

At the time of financing

Any new or existing combined cycle gas turbine (CCGT) asset being financed or re-financed before 2029 must demonstrate it can meet the amber measure of "30% readiness for hydrogen or its derivative" to qualify for transition status. An asset can be classified as amber (measures) even if the direct emissions do not meet the amber TSC requirement in the SAT, as the availability and commercial viability of hydrogen or its derivatives is beyond the borrower's control. However, it is recommended that the financier engage the borrower on its strategy for hydrogen supply chain development and responsible procurement.

Throughout the financing lifetime

If the tenor of the financing extends beyond 2029, the financier should consider how the borrower will meet "50% readiness for hydrogen or its derivative". A review event, when appropriate, should assess if the borrower meets the evolving thresholds as data becomes available.

[3] Volume percent, or ratio of the solute's volume to the total solution volume, representing the concentration of a substance in a solution

If the asset does not meet the threshold during its operation in 2029, the financier may choose to extend a grace period for the borrower provided the borrower demonstrates clear progress toward meeting the revised threshold.

Financing a high-value chemical plant

Table 10: Thresholds for a high-value chemical plant (in tCO_2e/t[4])

	2022-2029	2030-2039	2040-2049	2050 and beyond
High-value chemicals (e.g., ethylene, propylene, butadiene)	0.51	0.28	0.15	0.09

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, Table 10, page 67.

At the time of financing

Within the chemicals industry, the sunset date for the amber (measures) category is 2035. For "Activity 4.1. Manufacture of basic chemicals", however, there is no sunset date – merely interim adjustments for each decade. Financing of a high-value chemical plant qualifies as transition if the borrower can demonstrate that it meets the $0.51tCO_2e/t$ threshold at the point of financing.

Throughout the financing lifetime

If the tenor of the financing extends beyond 2030, the financier should consider how the borrower will meet the $0.28tCO_2e/t$ high value chemical threshold from 2030 onwards. A review event, when appropriate, should assess if the borrower meets the evolving thresholds as data becomes available. If the asset does not meet the threshold during its operation in 2030, the financier may choose to extend a grace period for the borrower provided the borrower demonstrates clear progress toward meeting the revised threshold.

[4] Tonnes of carbon dioxide equivalent per tonne

#3 Grandfathering rules and provisions in the SAT

The SAT was intended to be a document that is continually updated to reflect the latest science-based guidance and developments within the industry.

Grandfathering happens when, following the revision of a TSC, existing criteria continue to apply for a period. Grandfathering rules are more applicable to transition instruments based on milestone criteria (e.g., 2025 to 2035 targets). These have a higher likelihood of being amended to reflect best-in-class practices, when compared with green criteria that take a longer-term view of being aligned to a 1.5°C outcome.

This section is intended to allow industry participants to engage in financing with confidence despite potential future updates to the SAT.

Questions & responses

How should grandfathering apply to green and transition instruments that do not meet the revised TSC?

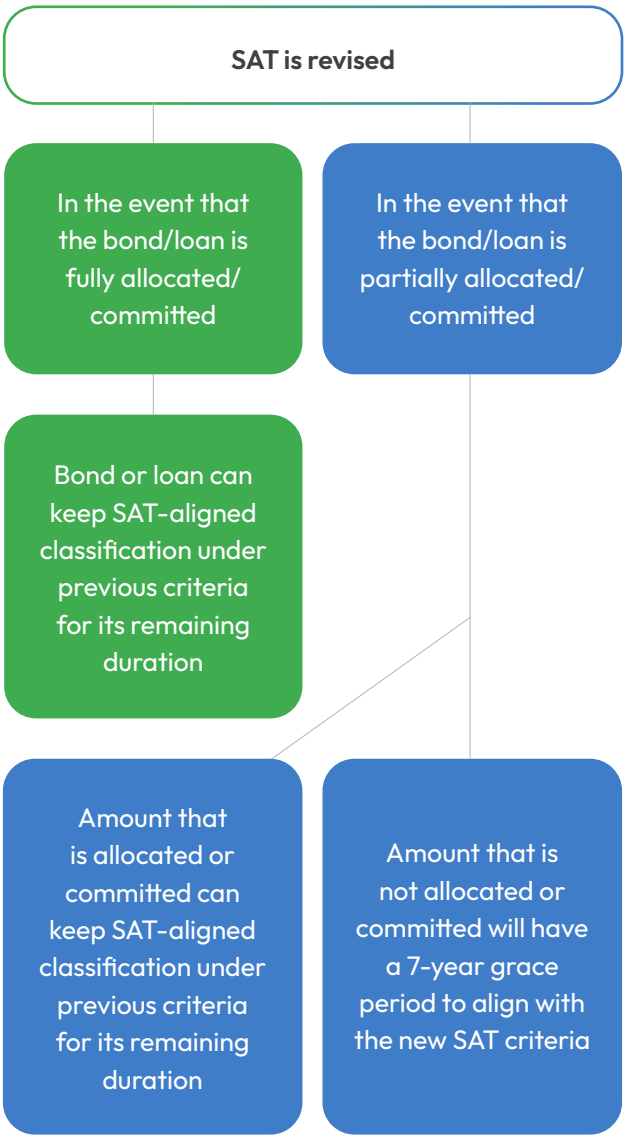
For a previously committed[5] amount for loans, or previously allocated[6] amount for bonds, the financing can remain classified as transition throughout the instrument's duration.

For uncommitted or unallocated amounts, the borrower has a 7-year grace period from the publication of the revised criteria for grandfathering. The instruments must align with the revised TSC by the end of the grace period. This period draws reference from other regions and jurisdictions, ensuring consistency and promoting interoperability. For both green and transition financing, the grandfathering period is set at seven years. While the 7-year period for green financing is based on international precedent, applying the same duration to transition financing is due to industry's preference for consistency and ease of administration across both green and transition financing.

When a portfolio approach is adopted, the 7-year grace period also applies. The revised criteria must be applied to the assets in the portfolio, and the allocation report indicating this alignment must be published within the grace period.

[5] Whereby a financier is obligated to provide funds upon the borrower's request
[6] Whereby a financier has dedicated the bond proceeds to a specific purpose

Grandfathering instruments that do not meet the TSC



When a green or amber-aligned instrument is no longer able to meet the revised TSC regardless of tenor, the borrower or financier should disclose in its allocation and/or impact report:

- Against which version of the taxonomy the instrument remains aligned (for bonds, this may already be mentioned in the green/transition bond framework or the allocation reports), and
- Where possible, the initiatives and steps to be put in place to align with the updated criteria.

Borrowers may also obtain an independent external assessment of alignment. Such a report should be made available either privately, to lenders, or publicly.

As the SAT criteria continue to evolve, it is not mandatory to review or declassify in-force debt instruments each time the TSC is revised. At the refinancing of a labelled bond or loan, however, the best practice is to re-assess the appropriateness of the label based on the prevailing criteria.

Case studies

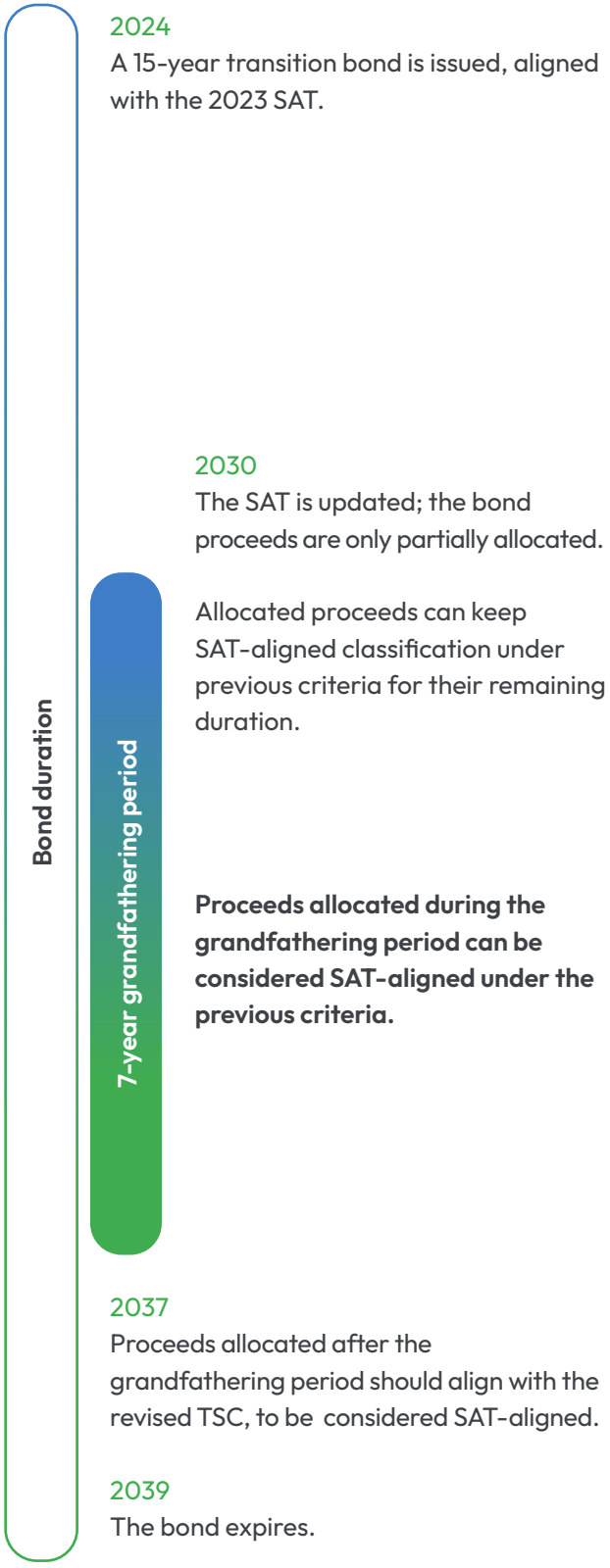
Grandfathering for short-tenor transition bonds

A 5-year transition bond is issued in 2024, aligned with the 2023 edition of the SAT. Assuming the SAT is updated before the maturity of this 5-year bond, the issuer can continue referring to the 2023 SAT until maturity (grandfathered as the tenor of the bond is within seven years).

Grandfathering for long-tenor transition bonds

A 15-year transition bond is issued in 2024, aligned with the 2023 SAT. Assuming the SAT is updated in 2030, the issuer can continue referring to the 2023 SAT until the maturity of the bond provided all proceeds have been fully allocated by 2030. If any proceeds remain unallocated in 2030, the issuer has seven years to ensure the unallocated proceeds are aligned with the revised TSC under the 2030 edition. After 2037 and until the bond's maturity, the issuer is strongly encouraged to align with the 2030 SAT.

Grandfathering a 15-year transition bond



#4 Assessing entity-level transition plans

The SAT also requires entity-level transition plans for some activities, particularly for the amber (measures) TSC where activity-level thresholds are not feasible due to a lack of technologically and economically feasible low-carbon alternatives. The plan should demonstrate the entity's decarbonisation commitments towards a Paris-aligned pathway. Specifically, the SAT mentions entity-level transition plans in the following scenarios:

1. Industry sector: A 1.5°C-aligned transition plan is required for companies in hard-to-abate sectors to qualify for amber (measures).
2. Sea and coastal water transport: A 1.5°C-aligned transition plan is required for dual-fuel vessels to qualify for amber (measures).
3. Early coal phase-out: A dual-level transition plan approach is required. A facility-level just transition plan is mandatory at the facility level to mitigate impacts on stakeholders. A separate entity-level Paris-aligned transition plan must demonstrate the borrower's broader strategy for phasing out coal assets.

A borrower that can produce an entity-level Paris-aligned transition plan outlining its overall commitment to transition and how the financed projects contribute to this plan will satisfy the entity-level transition plan requirement.

However, this requirement presents challenges on two levels:

1. Financiers may lack the expertise to assess the credibility of a borrower's transition plan, as standards and approaches vary significantly.
2. Borrowers that have not yet developed a transition plan may face difficulties in demonstrating alignment to the SAT criteria.

This section provides principles-based examples to assess the credibility of transition plans and recommends minimum guardrails for industry participants. Future revisions of the taxonomy may lead to adjustments of the requirements for a transition plan and the level of ambition.

Questions & responses

For borrowers with Paris-aligned transition plans, what should such plans entail and how can financiers validate the credibility of these plans?

Numerous supra-national organisations, industry associations (e.g. ICMA), ratings agencies and financiers have developed frameworks or guidelines to evaluate companies' transition plans. Approaches vary widely, however, and some guidelines are industry-specific. For example, the transition pathways for aviation and shipping differ markedly from those in real estate or energy.

This guidance recognises that plans can be customised based on industry best practices, available technologies, regional contexts and the evolving body of literature. This guidance does not aim to set a standard definition for transition plans or prescribe specific transition pathways.

Financiers are expected to exercise professional judgment when assessing the credibility and adequacy of a transition plan to determine financing eligibility and alignment under the SAT. SSFA recommends several practical approaches for assessing the credibility of transition plans and encourages industry players to consider these in their assessments:

1. SPOs: Independent SPOs from reputable providers can offer a standardised framework for evaluating transition plans or financing frameworks. Several SPO providers have confirmed they will voluntarily align with ICMA's Guidelines for External Reviews.

2. Third-party assessments: Credit ratings agencies and data providers (e.g., Bloomberg, Moody's Ratings, MSCI, S&P Global Ratings and Sustainable Fitch) have developed bespoke transition assessment products that financiers can leverage. Examples can be found here:

- Bloomberg's Transition Credibility Assessment
- Moody's Net Zero Assessment
- MSCI's Implied Temperature Rise
- Sustainable Fitch's Transition Assessment
- S&P's Climate Transition Assessment

3. Financiers' internal assessments: To supplement their professional judgement, financiers may reference established frameworks such as:

- ASEAN Transition Finance Guidance
- ICMA's Climate Transition Finance Handbook
- Transition Plan Taskforce Disclosure Framework (now part of the International Sustainability Standards Board)
- Transition Pathway Initiative (TPI)
- CDP Climate Transition Plans
- Climate Bonds Initiative's Frameworks to Assess Transition
- Assessing low-Carbon Transition initiative

For borrowers without Paris-aligned transition plans, do financiers still have flexibility to provide green or transition financing if the borrower demonstrates practical actions and specific commitments towards developing such a plan?

SSFA recommends financiers evaluate the borrower's operations, focusing on demonstrable commitments and actions that contribute to climate change mitigation.

The following are potential criteria for financiers assessing a transition plan:

- **Target-setting:** Whether borrowers have science-based decarbonisation targets with explicit milestones that include defined objectives for 2030 and 2050, covering all material GHG emissions scopes of the organisation. This could include the establishment of near-term quantitative GHG emissions reduction targets, increasing the use of renewable energy, increasing the adoption of relevant sustainability certifications (e.g., Bonsucro for sugar cane, RSPO[7] for palm oil and RTSR[8] for soy) and the share of capital expenditure directed towards energy efficiency measures.
- **Business transformation plan:** Whether borrowers present comprehensive business plans that align with their transitions, detailing achievable milestones and actions across short-, medium- and long-term horizons to meet established decarbonisation targets. A robust plan incorporates an external engagement strategy to address material scope 3 GHG emissions. It also demonstrates that a low-carbon business model is viable, supporting the borrower's long-term growth and resilience in a low-GHG emissions economy.
- **Investment plans:** Whether borrowers present forward-looking investment plans that support the implementation of their climate transition commitments, including clear timelines and specified investment amounts. The financing strategy can cover capital and operating expenditures, planned investments and divestments (if confidentiality allows), as well as R&D initiatives critical to executing the transition strategy. Additionally, borrowers should clearly articulate how current financing contributes to achieving their transition targets.
- **Board or senior leadership oversight:** Whether borrowers have documented governance structures and processes involving senior leadership or board members in the implementation of their transition plans. Examples include board approval of targets, strategies and financing plans.
- **External disclosure and verification:** Whether borrowers disclose targets publicly and seek independent verification for performance data, recognising that the targets should be recalibrated regularly to account for real economic developments and technological advancements.

Financiers must exercise professional judgment when assessing the actions and commitments of companies without a formal transition plan or in the process of developing them, particularly for small and mid-sized borrowers that may be resource-constrained. A balance must be struck between promoting high-integrity transition financing and acknowledging the challenges faced by companies in developing and disclosing comprehensive transition plans, particularly where they may be critical transition enablers within the value chain. Financiers are encouraged to leverage available tools, technologies and external validation where feasible.

Financiers and borrowers can also consider leveraging the MAS' Sustainable Bond Grant Scheme[9] and Sustainable Loan Grant Scheme[10] to offset the expenses incurred for external reviews.

[7] Roundtable of Sustainable Palm Oil
[8] Roundtable on Responsible Soy
[9] https://www.mas.gov.sg/schemes-and-initiatives/sustainable-bond-grant-scheme
[10] https://www.mas.gov.sg/schemes-and-initiatives/sustainable-loan-grant-scheme

Case studies

Financing a compressed biogas plant for a client in the diversified industrials sector

Here is how the above criteria might be used to evaluate a borrower setting up a compressed biogas (CBG) plant using press mud[11] from sugar manufacturing operations as feedstock. While the borrower has not yet committed to net zero, it has acknowledged the need to do so and is supporting India's national net-zero strategy through its bioethanol and CBG projects. The following initiatives undertaken by the borrower would demonstrate a firm commitment to decarbonisation:

- **Target-setting:** The borrower has short-term GHG emissions reduction targets.
- **Business transformation plan:** For the above targets, the borrower demonstrates increased utilisation of green energy in the manufacturing process (e.g., the borrower's sugar business is 100% biomass-powered and the borrower has increased renewable energy procurement by an additional 50MW), enabling it to achieve a 12% reduction in GHG emissions intensity in the year prior to financing. Additionally, the borrower has undertaken other initiatives including blending of ethanol with alcohol produced from molasses, use of blue hydrogen[12] as an energy source, cogeneration, use of solar energy, etc.
- **Investment plans:** The borrower is seeking financing for a biogas plant that is strategically important in driving GHG emissions reductions in India's energy sector. Burning agricultural waste is a significant source of GHG emissions in India, and this project offers a viable solution by capturing these GHG emissions and converting waste into clean energy. Biogas plays a critical role in India's energy transition by improving waste management, promoting local clean energy production and reducing reliance on imported compressed natural gas, which currently accounts for 47% of the country's gas needs.[13]
- **Board or senior leadership oversight:** The board has oversight of the borrower's GHG emissions reduction targets. Additionally, the borrower's sugar facilities are Bonsucro certified – reflecting strong governance and sound management practices in sustainability and responsible production.
- **External disclosure and verification:** The borrowers' targets and its scopes 1, 2 and 3 GHG emissions are disclosed in its annual sustainability reports.

Given the clear and demonstrable commitments and actions contributing to climate change mitigation, and the role the project plays in India's energy transition, this financing can be considered as contributing to a credible transition.

[11] A by-product in sugarcane juice production
[12] Hydrogen produced from natural gas
[13] The Green Shift: The low carbon transition of India's Oil & Gas sector, Energy Transition Advisory Committee, Ministry of Petroleum & Natural Gas, Government of India, February 2023.

#5 Distinguishing between amber and amber (measures)

Defining transition is particularly salient in Asia, where the progressive shift toward a net-zero economy is taking place alongside economic development, population growth and rising energy demands. The SAT has defined transition through two approaches: amber activities and amber (measures).

Questions & responses

How are amber and amber (measures) different in practice?

The SAT lays out amber criteria for activities that are not yet on a 1.5°C pathway but are either moving toward a green transition pathway within a defined period or facilitating significant GHG emissions reductions in the short term with a prescribed sunset date. At the sunset date, the activity must either already be aligned with the 1.5°C pathway or be downgraded to the ineligible activities category.

On the other hand, amber (measures) apply to specific components, technologies or processes that reduce an activity's scope 1 and/or 2 GHG emissions, encouraging capital investments that help bring the activity closer to the 1.5°C pathway over time.

The purpose of amber (measures) is to unlock financing for the decarbonisation of long-life activities (i.e., assets and facilities). The amber (measures) criteria are particularly useful when setting clear thresholds is challenging due to limited data, or where recognising progress toward green is more important than the starting point. This approach encourages GHG emissions reduction in hard-to-abate sectors (e.g., water transport, air transport and industrial) by acknowledging individual decarbonisation efforts.

Case studies

Financing a sustainable aviation fuel manufacturing facility

Under "Activity 2.8 Air Transport" in the transport sector, funding for the purchase of sustainable aviation fuel (SAF) and any investments toward the development of the SAF industry qualify under amber (measures). There are no amber criteria for the "Air Transport "activity – only amber (measures), which specifically pertain to the adoption or development of SAF. This means that the supply of feedstock that meets the SAF criteria as well as a SAF manufacturing facility that uses such a feedstock satisfies the amber (measures) criteria and financing of such activities can qualify as transition financing.

The SAT does specify that the feedstock for such a facility must meet the green criteria for biofuels. Borrowers can reference the Carbon Offsetting and Reduction Scheme for International Aviation by the International Civil Aviation Organization or the certificates under the European Union Renewable Energy Directive.

Part 2:

In the following sections, the SSFA outlines recommended approaches for providing transition financing to projects that do not fully meet the TSC under the SAT. For the avoidance of doubt, these recommendations do not imply that such projects are considered fully aligned with the SAT. Instead, such projects can potentially receive transition financing by referencing the SAT.

#6 Transition financing referencing the SAT where the projects do not meet all the TSC

#7 Accounting for commercially unavailable technologies

#8 Applying the amber category to new assets

#9 Recognising enabling and value chain activities that support green and transition activities in the SAT

#6 Transition financing referencing the SAT where the projects do not meet all the TSC

Financiers and borrowers referencing the SAT to structure transition loans or bonds may sometimes find that assets or projects cannot meet all the TSC due to reasons beyond the borrower's control, or that some criteria may not be fully relevant.

This section aims to facilitate wider adoption of transition financing by setting out scenarios in which assets or projects that are not fully aligned with the SAT might still be considered for transition finance. Under such scenarios, we recommend financiers exercise professional judgement in labelling using the green or amber criteria.

Questions & responses

How can financiers assess and structure the financing of non-aligned assets or projects as transition financing while safeguarding against transition-washing risks?

In the event that the borrower's asset(s) and/or project(s) cannot meet all the amber criteria due to regional, country-specific or industry-wide constraints beyond the borrower's control; the financier may exercise professional judgment in assessing if the financing can qualify as transition financing.

If a financier assesses that the activity to be financed demonstrates either (i) a transition toward green by the sunset date or (ii) that the activity will enable significant GHG emissions reductions in the short term even though it is not able to meet all the amber criteria, the financier can still consider financing such assets and projects within their green and/or transition financing frameworks, but not aligned to the SAT.

Some banks in the region already consider the financing of such activities as transition financing within their own financing frameworks. For avoidance of doubt, however, such activities cannot be deemed as aligned with the SAT. Financiers should be cognisant of transition-washing risks and should consider requiring borrowers to produce relevant documentation, such as a Paris-aligned transition plan. Financiers should also engage independent external reviewers and/or obtain an independent SPO to validate their assessments of labelling where appropriate.

Case studies

Amber (measures), energy

The amber (measures) criteria for "1. Energy" in the SAT lays out the following criteria:

The power cannot be generated from renewable energy sources, based on a comparative assessment with the most cost-effective and technically feasible renewable alternative for the same capacity identified; the result of this comparative assessment is published and is subject to a stakeholder consultation.[14]

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, page 31.

This type of system-level study is typically conducted at the government or community level, while transition financing is available to companies developing specific assets within the system. It can therefore be challenging for a borrower to obtain such a comparative assessment and ensure that the assessment undergoes a stakeholder consultation.

Amber, transportation of capture CO_2

The SAT's amber category for activity 6.2 "Transportation of captured CO_2" states that the activities should comply with all the following criteria:

- *Retrofitting of the existing CO_2 transportation systems in order to bring down the leakage rate from the current rate to the rate specified in the green category is eligible as amber*
- *The starting leakage rate may not be above 10% of the mass of CO_2 transported regardless of the mode of transportation*

[14] See page 31 of the SAT

- *The CO_2 is delivered to a permanent CO_2 storage site that meets the criteria for underground geological storage of CO_2 set out in Section 6.3*
- *Appropriate leak detection systems are applied and a monitoring plan is in place, with the report verified by an independent third party*
- *The activity may include the installation of assets that increase flexibility and improve the management of an existing network*
- *Sunset date for this activity is designated as 2030*

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, page 92.

If the current leakage rate of an existing project exceeds 10%, while the planned investment aims to reduce this rate to comply with the green criteria following a retrofitting exercise that will be completed before 2030, a bank can prioritise the potential outcomes of the investment and may consider offering transition financing. This is even if though the project in its current state does not fully meet all the criteria outlined in the TSC. However, such activities cannot be deemed as aligned with the SAT.

#7 Accounting for commercially unavailable technologies

In the SAT, some green and amber criteria have requirements around CCS/CCUS. The SAT recognises the potential of CCS/CCUS technologies to allow several activities (e.g., electricity generation from fossil gaseous fuels, manufacture of cement) to meet GHG emissions criteria.

However, the SSFA also recognises that significant progress is needed before CCS/CCUS technologies are widely adopted. Specifically in Southeast Asia, only a few potential projects have been identified and are still in the early stages of development.

In light of the current state of adoption of CCS/CCUS in the region, this section sets out alternative methods for assessing assets and projects against the SAT's green and amber criteria that mention CCS/CCUS.

Questions & responses

How should financiers evaluate assets and projects with green and amber criteria that mention CCS/CCUS?

Financiers can offer transition financing referencing the SAT if borrowers can demonstrate that their assets/projects are able to achieve comparable GHG emissions reductions through alternative methods. To ensure credibility, financiers are strongly encouraged to engage independent reviewers or consultants to assess the feasibility of these alternative methods.

How can borrowers demonstrate they are meeting comparable GHG emissions reductions without deploying CCS/CCUS technologies?

Borrowers should provide independently verified audit reports or assessment reports as evidence of GHG emissions reductions. When such data is not available (especially for smaller companies, or projects under development), financiers and borrowers may consider proxy data and/or estimates. When selecting proxies, please refer to data points or reports from internationally or locally recognised organisations as described in Section 1.

Case studies

Electricity generation from fossil gaseous fuels

Amber (measures)
Eligible CapEx measures can meet any one of the following:

- *Retrofit of existing power plants to allow hydrogen or its derivatives that meet the CCGT technological readiness thresholds and criteria in Table 2.2, or*
- *New power plants that can allow hydrogen or its derivatives the CCGT technological readiness thresholds and criteria in Table 2.2, or*
- *Other investments directly supporting or facilitating hydrogen uptake in the plant are eligible if the measures result in the new plant to allow for share (by volume) of hydrogen or its derivatives to reach or exceed thresholds described in Table 2.I (e.g. purchase, operation, and maintenance measures), or*
- *Retrofit of existing plants with CCS that is designed at the outset to allow the facility to meet the green criteria by 2035 at the latest. Or*
- *New power plants that capture at least 50% of emissions and are designed to meet Green criteria by 2035 at the latest.*

And, all measures must meet the following criteria:

- *The power cannot be generated from renewable energy sources, based on a comparative assessment with the most cost-effective and technically feasible renewable alternative for the same capacity identified; the result of this comparative assessment is published and is subject to a stakeholder consultation.*

Note: Amber measures can be new and qualifying measures do not need to meet the Amber activity criteria in Table I.

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, page 39.

Under the SAT activity 1.12 "Electricity generation from fossil gaseous fuels", the amber (measures) category TSC state that a "retrofit of existing plants with CCS that is designed at the outset to allow the facility to meet the green criteria by 2035 at the latest" can be recognised as amber (measures).

A retrofit of an existing plant without CCS/CCUS could also be financed through transition instruments by referencing the SAT if the plant is designed at the outset using alternative methods to allow the facility to meet the green criteria by 2035.

This approach allows for the recognition of transition efforts, but it should be noted that this example will not be considered aligned with the SAT.

Manufacture of basic iron and steel

Under SAT activity 4.3 "Manufacture of basic iron and steel", the amber criteria requires that a facility, from the onset of operations, uses CCUS "that operates to capture at least 20% of emissions".

In the interim while CCUS has yet to be scaled up, the financier can still offer transition financing for projects that demonstrate GHG emissions reductions of 20% compared with a baseline (or prevailing technologies). The borrower would also need to demonstrate how it meets the other amber criteria in this category:

- The facility has been designed to and is implementing all necessary actions to meet criteria for green category by 2030 at the latest, and
- The facility has a transition plan aligned with 1.5°C.

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, page 73.

While this approach allows for the recognition of transition efforts, it should be noted that this example will not be considered aligned with the SAT.

#8 Applying the amber category to new assets

The SAT states that "the amber category is, unless otherwise stated, relevant only for transitioning of existing infrastructure and activities and it does not apply to new projects".

This section highlights situations in which financiers can consider financing new assets stated as ineligible in the SAT, and label these as transition financing. The SSFA notes that certain activities, including those in hard-to-abate sectors, require flexibility in deploying new assets under the transition category while working toward long-term decarbonisation goals.

Questions & responses

Which SAT activities allow for new assets under the amber or amber (measures) criteria?

In the energy sector, the SAT identifies the following new assets eligible under amber (measures) criteria:

- New power plants (e.g., CCGTs or fuel cells) that can allow hydrogen or its derivatives (e.g., ammonia) that meet the CCGT technological readiness thresholds and criteria in Table 2.2
- New power plants that capture at least 50% of emissions and are designed to meet green activity criteria by a 2035 at the latest
- New transmission and distribution networks that allow ≥50vol% low-carbon gases
- New storage systems that allow ≥50vol% low-carbon gases

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, page 31.

In the transport sector, the SAT identifies the following new assets eligible:

- New dual-fuel vessels that can be switched to renewables, that derive at least 25% of their energy from zero direct tailpipe CO_2

emission fuels or plug-in power for their normal operation at sea and in ports (threshold to be revised by 2025), of which owner has a transition plan aligned with 1.5°C

- Vessels, which design at the outset allows for their modernisation/adaptation to use 100% renewables/meet the Green criteria by 2030, and of which owner has a transition plan aligned with 1.5°C

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, page 51.

- New projects under air transport, amber (measures) such as sustainable aviation fuel are also allowed.

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, page 43.

In the industrial sector, the SAT allows for the following new assets:

- (New and existing) facilities that do not meet criteria designed for green category at the outset but have been designed to and envisage full alignment over time and by 2030 latest, can be classified as amber

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, page 70.

- If, however, it does not meet the amber facility criteria, it may still raise finance for specific interim measures that will reduce the carbon footprint in the short term

Source: Singapore-Asia Taxonomy for Sustainable Finance (SAT): 2023 Edition, December 2023, page 71.

Can financiers offer transition financing for new assets not currently identified in the SAT?

For amber categories that do not state that new assets are allowed, new assets may also potentially be considered for transition financing if all the following conditions are met:

1. The new asset meets or will meet the TSC of the relevant amber or amber (measures) category;
2. The asset(s) can be directly transitioned to meet green criteria by the sunset date;
3. The asset(s) does not have a material negative impact on climate change mitigation, while contributing significantly to environmental objectives outside of climate change mitigation; and
4. The asset(s) does not result in carbon lock-in (such as having a life expectancy beyond the sunset date for that activity).

Financiers are strongly recommended to engage independent reviewers or consultants with relevant industry expertise in assessing the technologies and viable options for borrowers.

While this approach allows for recognition of transition efforts, it should be noted that such assets will not be considered SAT-aligned.

Case studies

Financing a newbuild ship under the amber criteria

When a financier is providing transition financing for a newbuild ship designed to operate with both conventional and greener fuel, the ship's fuel mix and GHG emissions intensity when operational will not be available at the point of financing.

To estimate the performance of the dual-fuel newbuild, the borrower can reference activity 2.6 "Sea and coastal water transport" in the SAT and should provide the vessel's fuel infrastructure, technology specifications and operational plans to support the expected GHG emissions profile. The borrower may also provide an estimate based on the operational data of ships with similar design specifications.

Assuming that the newbuild ship will be operational in 2028, a review should be conducted within a predefined period to assess if the operational data obtained meets the relevant TSC. The borrower shall provide actual fuel consumption for the period.

If the ship's operational data is found not to have met the green or amber TSC, the financier should declassify the financing instrument as green or transition.

#9 Recognising enabling and value chain activities that support green and transition activities in the SAT

While the SAT covers many economic activities that substantially contribute to climate change mitigation and hence can be classified as green or transition, it may not fully capture certain green- or transition-enabling and value chain activities.

Yet, these enabling and value chain activities are crucial drivers of low-carbon transition. These activities provide essential products, services and technologies that help other sectors achieve substantial GHG emissions reductions aligned with science-based pathways.

There has been progress in defining green-enabling activities, notably through ICMA's Green Enabling Projects Guidance. However, there is no corresponding list for enabling transition activities.

The SSFA proposes specific financing approaches to enhance capital flow for these enabling activities, which are often provided by small and medium-sized enterprises.

Questions & responses

How can financiers mitigate green/transition-washing risks when financing enabling activities?

Financiers can offer green or transition financing to enabling and value chain activities that directly support eligible green or transition activities. Some banks in the region already consider such activities green or transition financing within their own financing frameworks. While this approach allows for recognition of green or transition efforts, it should be noted that such activities will not be considered as aligned with the SAT.

To mitigate green/transition-washing risks, financiers should ensure that the proceeds are exclusively allocated to enabling projects that meet the TSC for green or amber criteria. There must be reasonable assurance that the financed activities are primarily dedicated to green and transition-related business operations.

For that purpose, SSFA recommends the following:

- **Ring-fencing proceeds:** Financing should be structured in alignment with the Green Loan Principles or Green Bond Principles, with a clearly defined Use of Proceeds. This includes

establishing robust internal processes and governance frameworks for project selection and the management of proceeds. Financiers should also commit to annual transparency regarding the allocation of funds and the potential environmental and social impacts.

- **Traceable end-use:** The borrower should engage stakeholders (e.g., customers, project owners) and maintain readily available stakeholder-supplied supporting documentation as evidence that the end-use of the product meets green or transition criteria on a best-effort basis. When possible, the borrower should report the share of activities directly supporting green or transition assets, activities, projects and/or products. If there is a lack of data, financiers and borrowers may refer to Section 1 for guidance.

For example: A supplier of a water treatment membrane would obtain the projected net average energy consumption from its customer (the owner of the water treatment project) to show that the green threshold of ≤0.5 kWh/m[15] of water produced is met.

- **Clear, quantifiable, and attributable environmental benefits:** Enabling and value chain activities may result in indirect environmental impact and outcomes. On a best-effort basis, the borrower should engage stakeholders to understand such environmental impacts and outcomes. If meaningful, these indirect impacts and outcomes should be assessed and reported.

For example: A supplier of components for EV charging solutions would obtain the annual actual/estimated avoided GHG emissions based on usage/projected statistics, compared against a baseline scenario.

In addition to the above, the financiers should assess projects against the following considerations to ensure alignment with credible transition financing principles:

- **Avoiding barriers to innovation:** Financed activities/assets should not impede the development of low-carbon alternatives.
- **Preventing carbon lock-in:** Financed activities/assets should not lead to long-term reliance on high-emission technologies or infrastructure.
- **Do No Significant Harm (DNSH):** Financiers should conduct comprehensive environmental and social due diligence to ensure that the financed projects have undergone a robust assessment of overall ESG management practices. To ensure ease of use of the taxonomy and encourage its adoption, DNSH is currently best practice under the SAT. For the avoidance of doubt, any project or facilities that are powered by captive coal power plants without a credible and time-bound transition plan shall be deemed as ineligible for transition financing.

Transition criteria have a sunset date to ensure the transition does not last forever and that the thresholds facilitate movement towards green. Transition-labelled financing for enabling and value chain activities should therefore follow the sunset date of the corresponding activity.

[15] Kilowatt-hours per cubic meter, a measure of the amount of energy consumed

Case studies

Examples of green-enabling and value chain activities/assets

- Financing of shipping vessels or for the retrofitting of existing vessels that do not have zero tailpipe emissions but are fully dedicated to the installation and/or maintenance of offshore wind farms
- Electrodes that support production of hydrogen through electrolysis
- Distribution and installation of energy-efficient building automation and control systems

Examples of transition-enabling and value chain activities/assets

- Installation of pumps and motors in the retrofit of a desalination plant that meets transition criteria
- Capital expenditure related to electrifying equipment used in the renovation of existing buildings that meets transition criteria

Appendix

Acronyms

Acronym	Description
CBG	Compressed biogas
CCGT	Combined cycle gas turbine
CCS/CCUS	Carbon capture and storage/Carbon capture, utilisation and storage
DNSH	Do No Significant Harm
EMA	Energy Market Authority
ESG	Environmental, social and governance
GHG	Greenhouse gas
GLEC	Global Logistics Emissions Council
G-RES	GHG Reservoir Tool
ICMA	The International Capital Market Association
MAS	Monetary Authority of Singapore
O&G	Oil and gas
SAF	Sustainable Aviation Fuels
SAT	Singapore-Asia Taxonomy
SPO	Second-Party Opinion
SSFA	Singapore Sustainable Finance Association
TPI	Transition Pathway Initiative
TSC	Technical Screening Criteria

About SSFA

The Singapore Sustainable Finance Association (SSFA) is an industry body established by the Monetary Authority of Singapore (MAS) along with the financial industry in January 2024. Building on the successful work of the Green Finance Industry Taskforce (GFIT), SSFA is established to collaborate across the financial and real economy sectors to support the growth of Singapore as a trusted, vibrant, and inclusive sustainable finance centre. SSFA welcomes participation from financial services, non-financial sector corporates, academia, nongovernmental organisations, policymakers and other industry bodies.

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