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Singapore Sustainable Finance Association

Guidance for

Leveraging the Singapore-Asia Taxonomy in Green and Transition Financing

November 2026 | Chapter 9 Addendum

Recognising Enabling Activities that Support Green and Transition Activities in the SAT

Prepared by the Singapore Sustainable Finance Association

Acknowledgements

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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

November 2026 | Chapter 9 Addendum

In November 2026, the Singapore Sustainable Finance Association (SSFA) launched the second edition of the Singapore-Asia Taxonomy for Sustainable Finance (SAT), introducing revised technical screening criteria for four sectors: Energy, Transport (Water Transport), Industry (Iron and Steel), and Information and Communications Technology (ICT) (Data Centres).

This addendum accompanies the second edition, expanding **Chapter 9, "Recognising Enabling Activities that Support Green and Transition Activities in the SAT"**. Key updates include:

- A clearer definition of enabling activities, building on ICMA's Green Enabling Projects Guidance and adapted to the SAT context;
- Guidance on financing enabling activities through existing green and transition financing frameworks, including the treatment of equity investments;
- Practical examples of enabling activities across different parts of the value chain; and
- Safeguards to mitigate greenwashing and transition-washing risks, including requirements on use of proceeds and traceability of end-use and environmental benefits.



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

2026 Edition

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 enabling activities across the value chain. However, these enabling activities are crucial drivers of low-carbon transition, even if they are not themselves the end-use sectors undergoing decarbonisation. As the SAT comprises both green and transition activities, this chapter highlights how financial institutions and real economy corporates can consider supporting enabling activities that are necessary for both green and transition activities. This chapter builds on the progress ICMA's Green Enabling Projects Guidance has made in defining green-enabling activities.

The addendum expands this chapter by providing:

- A clearer definition of enabling activities, building on ICMA's Green Enabling Projects Guidance and adapted for the SAT context
- Guidance on how enabling activities may be financed through existing green and transition financing frameworks, including treatment of equity investments
- Practical examples of enabling activities across different parts of the value chain
- Safeguards to mitigate greenwashing and transition-washing risks, including requirements relating to use of proceeds, traceability of end-use and environmental benefits.

Questions & responses

What are enabling activities?

Enabling activities are activities necessary for the development, manufacturing, implementation or scaling up of SAT activities. They are critical components of the SAT activities' value chains, even if they may not provide direct environmental benefits on their own.

Enabling activities may either be activities that are not covered by the SAT, or activities that are themselves covered by the SAT. Where an enabling activity is covered by the SAT, it may also qualify as green or amber if it meets the relevant SAT criteria.

For example, lithium mining and processing may support SAT green or transition activities even though it is not itself assessed against SAT technical screening criteria.

Meanwhile, manufacturing equipment for producing hydrogen through electrolysis is itself an SAT activity and enables the production of hydrogen.

Enabling activities may either support SAT green or transition activities exclusively, or have multiple end-uses, only some of which support SAT activities. For example, lithium mining and processing may

support the manufacture of lithium-ion batteries for electric vehicles, but lithium is also used in other applications such as ceramics manufacturing. Where enabling activities have multiple end-uses, safeguards (see below) are required to ensure financing supports eligible green or transition outcomes and to mitigate greenwashing and transition-washing risks.

How can enabling activities be financed?

Enabling activities do not constitute a standalone financing label in the bonds and loans markets. Instead, they may be financed through existing green or transition financing frameworks where they support eligible green or transition activities. Equity investments may also fall within the scope of enabling activities financing; in such cases, financiers should ensure that companies provide transparent disclosure of Revenue/CapEx/OpEx alignment with the relevant enabling activities and adhere to the safeguards described in this guidance, where applicable.

What are the safeguards for financiers to mitigate green/ transition-washing risks when financing enabling activities?

Financiers can offer green or transition financing to enabling activities that directly support eligible green or transition activities under the SAT. While this approach allows recognition of enabling activities that support green or transition efforts, it does not mean that these activities are aligned with the SAT.

To mitigate green/transition-washing risks, financiers should ensure proceeds are allocated exclusively to enable projects that meet the SAT's green or amber criteria. For use-of-proceeds instruments, proceeds should be ring-fenced and allocated to the relevant enabling activities in accordance with the applicable Green Bond Principles or Green Loan Principles. When enabling activities support SAT transition activities, such financing should also be subject to the applicable sunset dates of the underlying SAT transition activities. This additional safeguard is an important consideration for the Amber category as it helps maintain the integrity of transition financing by ensuring that enabling activities remain linked to transition pathways consistent with the SAT.

As the environmental contribution of enabling activities is often indirect, financial institutions and other market participants should apply appropriate professional judgement and discretion when assessing such activities. This should include consideration of specific financing purpose, end-use evidence, taxonomy or framework alignment, environmental contribution, safeguards, and potential risk of overstating the green or transition-enabling claim.

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 of the Guidance (July 2025 edition) 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/m³ of water produced is met.*

- **Clear, quantifiable, and attributable environmental benefits:** Enabling activities across the value chain may result in indirect environmental impacts 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, 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.
- **Where financing takes the form of an equity investment:** investors should apply these safeguards in a manner appropriate to the investment structure. This may include assessing the proportion of the investee company's Revenue/CapEx/OpEx associated with the relevant enabling activities and demonstrating the link between those activities and the underlying SAT green or transition activities.
- **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 facility that is powered by captive coal power plants without a credible and time-bound transition plan shall be deemed ineligible for transition financing.

Examples of Enabling Activities

This section provides a practical, non-exhaustive list of activities that may be considered enabling, with examples chosen to showcase key components of a typical value chain.

Whether an activity is 'enabling' should be assessed case-by-case, taking into account its specific purpose, end-use and contribution to green or transition outcomes. Such assessments should also be subject to the safeguards set out in this chapter (see above), which build on the principles in ICMA's Green Enabling Projects Guidance. **Where an enabling activity (e.g. Manufacture of solar cells and modules necessary for solar photovoltaic generation) is covered by the SAT, it may also qualify as green or amber if it meets the relevant SAT criteria.**

The categories below are intended to provide a common framework for corporates and financiers to identify where enabling activities may arise across the value chain. They can help users identify upstream and downstream activities that support green and transition outcomes and facilitate discussions on how such activities may be financed through existing green and transition financing frameworks.

1. Raw materials

- Extraction, refining and processing of minerals necessary for renewable energy and electricity grid equipment (e.g. copper for cabling, rare earths for wind turbine magnets).
- Extraction, refining and processing of minerals necessary for electric vehicle (EV) batteries (e.g. lithium, nickel, graphite).
- Collection and processing of sustainable biomass feedstock necessary for the production of biofuels.

2. Manufacturing

- Manufacture of power cables necessary for grid expansion and upgrades that integrate renewable energy.
- Manufacture of solar cells and modules necessary for solar photovoltaic generation.
- Manufacture of equipment that is necessary for the use of low-carbon hydrogen or ammonia in industrial and energy sector applications (e.g. hydrogen- and ammonia-compatible burners).
- Manufacture of electrolyser components (e.g. electrodes) necessary for the production of low-carbon hydrogen.

- Manufacture of specialised membranes and treatment equipment necessary for water treatment, desalination and water recycling systems.
- Manufacture of integrated circuits and control systems necessary for battery energy storage and smart grid applications.

3. Distribution and transportation network

- Grid upgrades that are necessary to increase the deployment of renewable energy by increasing grid capacity, flexibility, and resilience.
- Storage and pipeline infrastructure necessary to deliver low-carbon hydrogen to end-users across industrial, power, and transport applications.
- Vessels dedicated to the installation, operation or maintenance of offshore wind farms.

4. Installation, retrofits and technical integrations

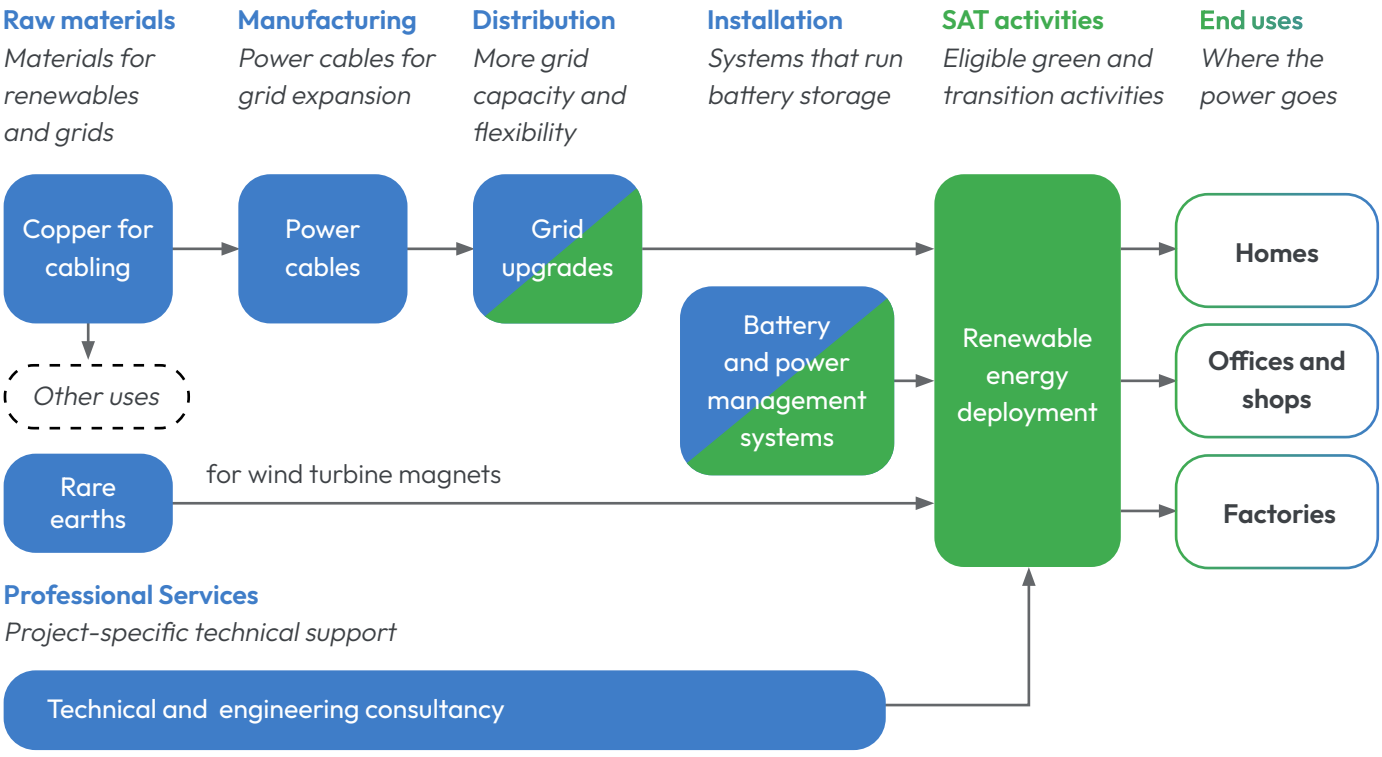
- Installation of building automation and control systems necessary for buildings to meet relevant energy performance criteria.
- Installation of pumps and motors as part of industrial and infrastructure retrofits (e.g. desalination plant) to improve energy efficiency.
- Installation of battery management and power management systems necessary for the operation of battery energy storage systems to support renewable energy integration.

5. Professional services

- Project-specific technical and engineering consultancy that is necessary for the technical development and implementation of green and transition projects.

Figure 1 illustrates how enabling activities across these categories may support a single SAT activity, using renewable energy deployment as an example.

Figure 1: Illustrative value chain of enabling activities supporting renewable energy deployment.



Note: The figure is non-exhaustive, and whether an activity is enabling should be assessed case by case, subject to the safeguards in this chapter.

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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