Analysis

ICMA Climate Transition Guidelines need greater clarity

Ambiguous framework risks undermining investor trust

Cedric Rimaud & Christina Ng | April 2026

Key Takeaways

- The ICMA's Climate Transition Bond Guidelines lack sufficient guard rails for credible transition finance. Four structural weaknesses undermine the transition label's integrity: an unclear green-transition boundary, an overly broad definition of "climate transition", weak entity-level safeguards, and inadequate protection against carbon lock-in. The ICMA should subject the guidelines to external review and public consultation before further institutionalising them.
- The green-transition boundary matters because transition finance is meant for sectors where decarbonisation is genuinely difficult. Relabelling activities already eligible under green bond standards dilutes analytical value, adds due diligence burdens, and risks crowding out capital from hard-to-abate sectors, which are high-emitting, technologically constrained and without readily scalable low-carbon alternatives.
- Entity-level transition credibility must be a core condition of transition finance. Without this criterion, a transition bond could fund a lower-emitting project while leaving the issuer's wider business materially exposed to carbon-intensive operations. Mandatory Scope 1, Scope 2 and material Scope 3 disclosure – linked to the issuer's overall decarbonisation pathway – should be a minimum requirement.
- In terms of carbon lock-in, the ICMA's treatment is weaker than the LMA's and insufficient to serve as a credible international standard. Disclosing lock-in risk is not the same as preventing it. Transition finance should not support new greenfield fossil infrastructure where feasible lower-carbon alternatives exist.

Executive Summary

The International Capital Market Association (ICMA) published its Climate Transition Bond Guidelines[1] in November 2025. Shortly prior to that, the Loan Market Association (LMA) released its own version, entitled Guide To Transition Loans.[2] Both publications respond to increasing demand from issuers and investors for a financing label dedicated to the decarbonisation of hard-to-abate, high-emitting sectors.

Capital-intensive sectors that are technically difficult to decarbonise need large investments to achieve the objectives of the Paris Agreement. Green loans and bonds alone cannot deliver on the climate transition that is necessary for hard-to-abate sectors such as steel, cement, aviation, shipping and chemicals. While some markets have begun issuing guidance through local regulators, the ICMA and LMA guidelines are welcome initiatives as they **seek to provide a common framework for transition finance in a global market where national starting points differ,[3] and where investors lack comparable and clearer scope on what constitutes a credible transition activity.**

However, neither framework is sufficiently robust for the development of credible transition finance markets. **In their current form, the guidelines leave substantial ambiguity regarding the definition of**

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[1] ICMA. Climate Transition Bond Guidelines. November 2025
[2] LMA. Guide To Transition Loans. October 2025
[3] ESI. Decoding Asia's Transition Taxonomies. December 2025

transition activities, the scope of eligible sectors, and the safeguards required to ensure meaningful emission reductions.

Four key structural weaknesses undermine the credibility of the guidelines.

First, the guidelines do not distinguish sufficiently between green activities and transition activities. Existing green bond and loan standards are good enough to serve green investments, such as renewable energy projects, energy-efficient buildings and electric mobility. Transition finance should be reserved for investments that reduce emissions directly from high-carbon assets or industrial processes in hard-to-abate sectors. Without this distinction, the transition label risks becoming a rebranding of conventional green finance, thereby raising due diligence burdens and becoming less useful to decision-making. Such a transition label would result in investors facing additional risks of mislabelling in forming their investment portfolios, which could lead to legal action and public relations issues. From a broader point of view, an ill-defined transition label may also reduce the amount of capital available to finance the climate transition.

Second, the definition of 'climate transition' remains unclear. The guidance is too broad and does not focus clearly on a list of defined categories of eligible activities. As a result, investments that are unrelated to decarbonisation can be labelled as transition finance. This will create confusion among investment professionals and weaken investor confidence.

Third, the guidance lacks sufficient entity-level safeguards. Without a defined approach to climate materiality or full value-chain assessment, issuers have significant discretion in framing their transition strategies, such as emphasising selected improvements while downplaying broader exposure to carbon-intensive activities. In a market where taxonomies already diverge, this loose approach allows issuers to align with the most favourable interpretation of "transition", increasing the risk of inconsistent outcomes.

An activity should receive the "climate transition" label only when it is linked directly to the abatement of carbon emissions of a hard-to-abate, high-emitting sector.

Fourth, the guidance does not protect against fossil fuel lock-ins. It is critical to prioritise technologies that avoid fossil fuels, such as gas or co-firing, as an essential part of establishing a credible carbon transition strategy.

Strengthening these elements, before establishing formal transition principles, will ensure that transition finance channels capital towards genuine decarbonisation efforts and maintains investor confidence in the integrity of sustainable finance markets.

Problem statement 1: Green activities are being relabelled as 'climate transition'

The ICMA's Climate Transition Bond Guidelines recognise that "it is inherently difficult to draw a line between a Climate Transition Project and a Green Project". The difficulty is acknowledged, but it does not remove the need for a meaningful distinction. If activities already recognised widely as green can also be labelled as "transition", the transition label risks losing its analytical value for investors.

In the view of the Energy Shift Institute, **an activity should receive the "climate transition" label only when it is linked directly to the abatement of carbon emissions of a hard-to-abate, high-emitting sector.** Otherwise, the label becomes too broad and starts to overlap with green bond and loan standards.

Japan's sovereign Climate Transition Bond Framework[4] illustrates the problem. Its use of proceeds (UoP) includes the manufacturing of next-generation solar cells, offshore wind power generation, nuclear power, and high-efficiency water heaters in households. These are all activities that can already be financed under the ICMA's Green Principles.[5] For example, solar manufacturing has long been funded through green bonds, including Midsummer AB's 2019 green bond for solar panels, solar cells and related manufacturing equipment.[6] **When such activities are labelled as transition rather than green, investors are left asking what additional meaning the transition label is meant to convey**.

The same confusion appears at issuer level. For example, Daio Paper of Japan has issued a transition bond while, in the same industry, European firm Stora Enso has issued a green bond. Both companies have near-identical use-of-proceeds categories (Figure 1), so Daio Paper's bond should arguably be labelled "green", not "transition". Given that the activities financed by the two bonds are mostly green, labelling Daio Paper as "green" reinforces trust among investors more than labelling Stora Enso's bond as "transition". If substantially similar activities are labelled differently across markets, the label stops being reliable for distinguishing between financing activities that already have low emissions and those still in the process of reducing emissions.

Japan's Daio Paper has issued a transition bond while, in the same industry, European firm Stora Enso has issued a green bond. Both companies have near-identical use-of-proceeds categories.

Figure 1. Use of Proceeds by Two Paper Manufacturers

Stora Enso (Green Bond UoP)[7]	Daio Paper (Transition Bond UoP)[8]	UoP Assessment
Sustainable forest management	Environmentally sustainable management of biological resources and land use	Same
Sustainable product processes	Environmentally adaptive products	Same
Energy efficiency	Energy conservation	Same
Renewable, waste-to-energy equipment	Renewable energy	Same
Sustainable water management	n/a	No comparison
Waste management and pollution control	Promotion of hard-to-recycle wastepaper usage	Same

Sources: ESI analysis; Stora Enso; Daiso Paper

This does not mean green activities can never appear in a transition bond. The key is context. In a hard-to-abate sector such as steel, a green investment may form part of a credible transition when it is clearly tied to the decarbonisation of the underlying industrial process.

Japanese company JFE Holdings is an example. Its transition bond[9] supports scrap expansion and research into hydrogen steelmaking and electric furnaces, which are part of the pathway in the transition of the steel manufacturing process, hence the proceeds do not fund only standalone green activities. The activities financed under the transition label are part of JFE's transition strategy.

The JFE case also highlights an important nuance. The distinction is not that hard-to-abate sectors should always use a transition label, while low-emission activities should always carry a green label. The more relevant question is what the financing actually supports.

[4] Government of Japan. Japan Climate Transition Bond Framework. November 2023
[5] ICMA. Green Bond Principles. June 2025
[6] Midsummer AB. Green Bond Framework. March 2019
[7] Stora Enso. Stora Enso Green and Sustainability-linked Financing Framework. May 2023
[8] Daio Paper. Transition Bond Framework. Accessed April 2026
[9] JFE. JFE Holdings to issue transition bonds in fiscal 2022. January 2022

In hard-to-abate sectors, a green label may be more appropriate where the financed asset is already emitting low or near-zero carbon emission. Swedish steel producer SSAB's green loan[10] to replace a blast furnace with a fossil-free new mill is a good illustration. In this case, the financing appears to support the low-carbon end-state itself – rather than a broader package of intermediate transition steps, as in the JFE example. For investors, that green label signals financing is tied to an asset which is already presented as the cleaner destination technology.

If "transition" can mean everything, it will ultimately mean nothing.

This distinction matters. A green label in a hard-to-abate sector signals that the financed asset itself is already low-emission. By contrast, a transition label is more meaningful when the financing supports a broader decarbonisation pathway in a high-emitting sector. When this distinction is not made clearly, similar activities begin to move between green and transition labels without a clear rationale.

'Hard-to-abate' does not simply mean high emissions

What are "hard-to-abate" and "high-emitting" sectors? This is a question that both the ICMA and LMA guidance fail to answer. The distinction matters, because transition finance is most credible when used for sectors where decarbonisation is not yet straightforward. More importantly, not all high-emitting sectors are equally suited to a transition label.

In the view of the Energy Shift Institute, a sector is hard to abate when it is:

- High-emitting
- Technology-constrained
- Without readily scalable low-carbon alternatives

This set of criteria generally points to iron and steel, cement, chemicals, aviation and shipping. In some cases agriculture, where methane and nitrous oxide are difficult to eliminate, is sometimes treated as "hard to abate", but the solutions can normally be treated as "green". By contrast, buildings, road transport, land use and waste management are more often addressed through existing green finance tools, since lower-emission alternatives are already more widely available.

If "transition" can mean everything, it will ultimately mean nothing. Therefore, a clearer definition of hard-to-abate sectors would help preserve the analytical value of the transition label and improve comparability across markets.

The guidelines can be improved by:

- **Keeping the transition label for high-carbon, hard-to-abate sectors investing in the reduction of their carbon emissions;**
- **Defining "hard-to-abate" sectors as those that are high-emitting, technologically constrained and without readily scalable low-carbon alternatives.**

Problem statement 2: 'Climate transition' definition remains too broad

The current guidance **does not define climate transition with sufficient clarity.**

The ICMA states: "Climate transition focuses principally on the credibility of *an issuer's GHG emissions reduction strategy, commitments, and practices*."[11] The LMA similarly explains "transition finance is

[10] State of Green. A new approach to financing the climate transition. September 2025
[11] ICMA. Climate Transition Finance Handbook. November 2025

focused on enabling real-world decarbonisation by supporting *GHG emissions reduction, particularly in hard-to-abate and/or high-emitting sectors*" and that "while it is particularly suitable for hard-to-abate and/or high-emitting sectors, *transition finance may be applied more broadly*, across industries and geographies, provided activities meet applicable criteria and align with credible decarbonisation pathways".[12] While both frameworks emphasise real-world decarbonisation and the credibility of issuer transition strategies, the wording is confusing and broad enough that it creates **uncertainty as to what is eligible and what must be excluded**.

Specificity matters because **transition finance is not meant to cover every activity or entity with some connection to emission reduction or energy system change**. Its credibility depends on whether the label is reserved for activities that are meaningfully tied to the decarbonisation of high-emitting, hard-to-abate sectors and processes. If the definition is too open-ended, the label can begin to absorb activities that are only related indirectly to climate transition, weakening its usefulness for investors.

For example, the label risks absorbing energy security narratives, speculative innovation or other activities with uncertain decarbonisation impact. And because ICMA guidance does not provide a sufficiently clear anchor and instead points to a non-exhaustive list of 26 taxonomies, each with different interpretations of "transition",[13] market participants are left to cherry-pick whichever definition is most accommodating, a behaviour known as taxonomy shopping.

Coal-to-gas power generation – as the ICMA describes it – illustrates the problem. Coal-to-gas power is treated as eligible in some transition financing frameworks, including Japan's Basic Guidelines on Climate Transition Finance, but not under, for example, the Australian Sustainable Finance Taxonomy or the European Union Taxonomy except with strict emission conditions and time-bound requirements.[14,15,16] The basis for eligibility rests on coal power generally releasing more carbon per kilowatt-hour (kWh) than gas. However, such a comparison excludes upstream methane and life-cycle emissions, which can affect the relative climate performance of gas power materially – and therefore, testing the eligibility of gas generation as a credible climate transition pathway from coal-fired power. We discuss this further in Problem Statement 4 below.

Coal-to-gas power is treated as eligible in some transition financing frameworks, including Japan's, but not under Australia's or the EU's.

The variations among taxonomies show that the concept of "transition" remains materially unsettled across markets.

The variations among taxonomies show that **the concept of "transition" remains materially unsettled across markets**,[17] and the ICMA guidance does not offer any clarity on how to interpret such differences under a common transition label. Energy Shift's concern is that including coal-to-gas projects further complicates and adds to existing ambiguities instead, particularly when interpretations of "transition" already differ across markets and taxonomies.

The same concern arises where activities are included that are only loosely connected to hard-to-abate decarbonisation. Japan's Climate Transition Bonds, for example, include investments related to

[12] LMA. Guide To Transition Loans. October 2025
[13] ESI. Decoding Asia's Transition Taxonomies. December 2025
[14] METI. Basic Guidelines on Climate Transition Finance. March 2025
[15] These conditions include replacing coal generation, limiting capacity expansion, committing to a switch to low-carbon gases by 2035 and achieving a 55% reduction in emissions. Coal power generation from a supercritical or subcritical plant typically emits 850-1,000gCO_2/kWh, while gas power generation from a combined cycle or open cycle plant usually emits 350-500gCO_2/kWh by direct combustion.
[16] Covington and Burling. Gas and nuclear activities in the EU Taxonomy regulation: Under what conditions does the commission deem them environmentally sustainable? February 2022
[17] ESI. Efficient but still carbon-heavy: Japan's gas transition bonds need credibility. April 2026

artificial intelligence development in semiconductors and data centres.[18,19] Likewise, a large share of the bonds also supports research and development whose direct impact on climate is uncertain and may not be realised at scale. This kind of coverage stretches the transition concept too far. Innovation may be important to future decarbonisation, but that does not mean all innovation with a possible climate connection should qualify as transition finance. Such an interpretation blurs the purpose of transition finance and risks misleading investors about the underlying use of proceeds.

Another issue is the ICMA's criterion around its proposed transition eligibility: transition steps in the short and medium term. The concept may be reasonable in principle, but it is not defined tightly enough. No timeframes are given. Without clearer boundaries, investors are left to interpret for themselves whether an activity represents a genuine transitional step or simply a looser justification for continued emissions.

The guidelines can be improved by:

- **Narrowing the definition of climate transition around activities clearly linked to the decarbonisation of hard-to-abate, high-emitting sectors;**
- **Explicitly excluding activities whose climate contributions are indirect, uncertain or better captured under green finance frameworks;**
- **Requiring sunset provisions for high-emitting fuels that are eligible as transition activities, for example, in the Singapore and Thailand sustainable finance taxonomies, which offer useful reference points about transition provisions, particularly on existing gas power generation;[20,21] and,**
- **Clarifying that transition eligibility should not extend to new or expanding sectors unless they are demonstrably part of the decarbonisation of an existing hard-to-abate, high-emitting activity.**

Problem statement 3: Credibility of entity-level transition strategy must be a core condition of the transition label

A transition label is only as credible as the issuer's broader transition strategy. A use-of-proceeds instrument can finance an activity of lower emissions, but **if investors cannot assess whether the financed activity is material to the issuer's overall decarbonisation pathway, the label risks overstating the credibility of the transition claim.**

A transition label is only as credible as the issuer's broader transition strategy.

The ICMA recognises that issuer transition strategies matter. However, **its guidance does not establish a sufficiently clear link between instrument assessment and entity-level assessment, nor clear safeguards for how to assess that credibility at entity level.** It is necessary to disclose how capital expenditures for projects contribute directly to the overall transition of the parent entity. If an investment is planned in a separate entity, an explanation of how it contributes to the decarbonisation of legacy businesses would clarify this contribution. Climate materiality should be defined with enough precision as well. This should include **a clear expectation that the financed activity addresses the issuer's most significant source of emissions, and that its contribution to emission reduction is material to the overall emission profile.** To strengthen it, entities can show their alignment with

[18] Government of Japan. Japan Climate Transition Bond Framework. November 2023
[19] Government of Japan. Japan Climate Transition Bonds: Allocation Report for FY2023 Issuance. December 2024
[20] Monetary Authority of Singapore (MAS). Singapore-Asia Taxonomy for Sustainable Finance. Page 22. December 2023
[21] Bank of Thailand. Thailand Taxonomy – Energy. Section 1, Page 2. July 2025

targets derived from the Science Based Targets initiative (SBTi), and also with external reviews, certification under science-based taxonomies and other sources of standards.

Moreover, **the treatment of value-chain emissions remains too weak**. In the ICMA's Climate Transition Finance Handbook, the disclosure it calls for only recommends, but does not require, the publication of hard data. In particular, there is no mention of a value-chain approach to greenhouse gas (GHG) emission disclosures, including Scope 3.[22] As a result, issuers may present transition narratives that focus on selected improvements without giving investors a full picture of the business' overall climate impact.

The issuer's narrative is critical because transition finance is judged not only by whether a financed activity reduces emissions in isolation. Investors also need to know if the issuer's wider business is aligned with a credible decarbonisation pathway, or whether the financed activity sits alongside material exposure to carbon-intensive operations that remain largely unchanged.

The example of Nippon Yusen Kabushiki Kaisha (NYK) Line illustrates this issue.[23] Since its first issuance in July 2021, NYK has become a serial transition bond issuer with repeated issuances in 2023, 2024 and 2025.[24] The bonds aim to support the transformation of the ships' energy use and is cited by the Ministry of Economy, Trade and Industry (METI) as a transition case study.[25] Yet the company's broader business includes transporting coal, liquefied natural gas (LNG), iron ore and other bulk commodities that are central to fossil-linked value chains[26] (Figure 3). In 2024, NYK's Scope 3 emission disclosure revealed total emissions rose sharply compared with earlier reporting,[27] materially changing the picture of its climate impact (Figure 4).

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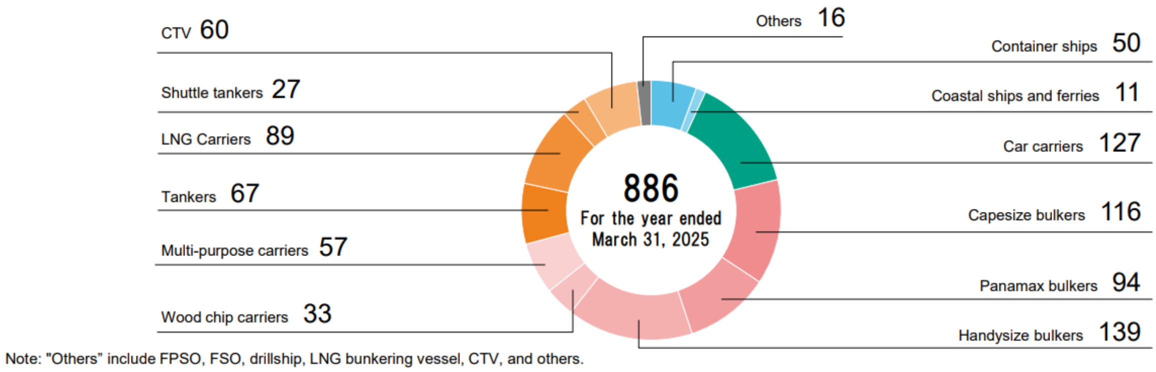
Figure 3. Number of NYK Line Ships under Management



Source: NYK Line
Note: FPSO = floating production storage and offloading; FSO = floating storage and offtake; CTV = crew transfer vessel

[22] ICMA. Climate Transition Finance Handbook. Element 1, page 5. November 2025
[23] NYK. Company Profile. Accessed April 2026
[24] NYK Line. NYK to issue new transition bonds. November 2025
[25] Ministry of Economy, Trade and Industry, Japan. Transition finance case study 1: Nippon Yusen Kabushiki Kaisha. Accessed April 2026
[26] NYK Line. Investor Report Factbook 2025. Accessed April 2026
[27] NYK Line. Environmental data. Accessed April 2026

Figure 4. NYK Line's Scope 1, 2 and 3 Carbon Emissions (tons of CO_2e)

Type	FY2021	FY2022	FY2023	FY2024
Scope 1	12,678,695	11,255,044	11,424,566	11,140,236
Scope 2 (market-based)	45,391	76,255	63,342	82,402
Scope 3	3,890,661	3,264,023	3,457,823	20,345,980
Total	16,614,747	14,595,322	14,945,731	31,568,618

Source: NYK Line[28]

From an investor perspective, the Scope 3 surge is significant. A transition-labelled instrument may support operational decarbonisation in one part of the business while leaving the issuer's wider climate footprint insufficiently examined. Where Scope 3 emissions are material, focusing mainly on Scope 1 and 2 can give an incomplete impression of transition progress. In this case, the label may communicate a supposedly more credible transition story than the issuer's broader business model supports.

This pattern is not unique to transition finance. Earlier debates and questions around green bonds from carbon-intensive issuers, including Hong Kong Airport Authority and Spanish energy firm Repsol,[29,30] also showed that investors did not assess labelled instruments only by the ring-fenced use of proceeds. The lesson for transition finance is similar. Project-level improvements can be real, but investors may still question the credibility of the label if the wider business model remains insufficiently aligned.

A transition-labelled instrument may support operational decarbonisation in one part of the business while leaving the issuer's wider climate footprint insufficiently examined.

The ICMA's guidance would therefore be stronger if it required a clearer definition of climate materiality and made disclosure of Scope 1, 2 and material Scope 3 emissions a core requirement of transition-labelled finance, rather than a best-efforts expectation.[31] This would help investors assess whether the financed activity is genuinely part of a credible entity-level transition instead of a narrower improvement presented in isolation.

The guidelines can be improved by:

- **Defining climate materiality in stronger, more operational terms, including linkage to the issuer's main emission sources;**
- **Requiring a clear link between financed activities and the issuer's overall transition pathway;**
- **Requiring the consideration of carbon emissions from the whole supply chain, including disclosure of material Scope 3 emissions; and,**
- **Ensuring that subsidiary or ring-fenced investments are assessed in the context of the group's transition.**

Problem statement 4: Safeguards against carbon lock-in are not strong enough

A transition label should support the decarbonisation of high-emitting sectors without entrenching a new generation of carbon-intensive assets. The ICMA guidelines recommend the "identification,

[28] NYK Line. Environmental data. Accessed April 2026
[29] South China Morning Post. Sustainable finance: 'greenwashing' concerns raised as Hong Kong airport floats US$4 billion bonds package to fund growth, decarbonisation. January 2022
[30] Clifford Chance. Greening the financial system. February 2018
[31] ICMA. Climate Transition Finance Handbook. Element 3, page 8. November 2025

analysis, best-efforts mitigation, and disclosure of carbon-lock in risks". Doing so would require a higher degree of exigence.[32] In its current form, the ICMA guidance leaves room for activities to be presented as being eligible for transition finance even where they may prolong fossil fuel dependence, delay lower-carbon alternatives, or create new greenfield infrastructure with long operating lives that are misaligned with a credible decarbonisation pathway. The LMA guidance is stronger, requiring the "absence of low-carbon alternatives" and accepting "low-carbon alternatives that are technically and/or economically feasible within the local market and sector".[33]

Disclosing lock-in risk is not the same as preventing it.

The ICMA's guidance merely suggests that lock-in can be acknowledged and disclosed.

The LMA guidance is stronger on this point.

These are not minor technical issues. Carbon lock-in goes to the heart of whether a transition-labelled instrument is financing genuine decarbonisation or the status quo. The LMA guidance is clearer on this point, stating that transition finance should avoid lock-in risks of carbon-intensive assets, infrastructure and value chains. By contrast, the ICMA guidance refers more broadly to the identification, analysis, best-efforts mitigation and disclosure of carbon lock-in risks. That is a materially weaker requirement than the LMA. The ICMA's guidance merely suggests that lock-in can be acknowledged and disclosed, without making clear enough at what point it should disqualify an activity from carrying a transition label. This is particularly relevant for activities such as coal-to-gas generation, where the risk of long-term fossil lock-in remains significant.[34]

The more important question for investors is whether transition finance facilitates the system's move towards a credible low-carbon end-state, or locks in a new fossil-based pathway with uncertain or delayed exit conditions.

This gap matters particularly in sectors and technologies where emissions may fall relative to a higher carbon baseline, but where the financed asset still reinforces long-term fossil dependence. Gas-related transition projects are the clearest examples. In some taxonomies and market frameworks, coal-to-gas or LNG-related investments are treated as transitional, whereas the more important question for investors is this: whether the financing facilitates the system's move towards a credible low-carbon end-state, or locks in a new fossil-based pathway with uncertain or delayed exit conditions. This concern is reinforced by Energy Shift's April 2026 analysis of gas-to-gas transition financing, which shows that while emission intensity may fall at plant level, overall emission outcomes depend heavily on usage and system-level effects, raising questions about whether such investments support a genuine transition.[35]

Mitsui O.S.K. Lines (MOL) is a clear example.[36,37] MOL has used transition-labelled instruments[38,39] in connection with LNG-related shipping and infrastructure, including an LNG terminal, a floating storage and regasification unit supporting a new LNG-fired power plant in Indonesia, and LNG-fuelled ferries.[40] These are not simply emission-reduction measures within an existing asset base. They involve new or

[32] ICMA. Climate Transition Bond Guidelines. Section 2.1, page 3. November 2025
[33] LMA. Guide to Transition Loans. Part 1, page 4; part 3, page 14. October 2025
[34] ICMA. Climate Transition Bond Guidelines. Appendix, page 8, November 2025
[35] ESI. Efficient but still carbon-heavy: Japan's gas transition bonds need credibility. April 2026
[36] MOL. Sustainable Finance. Accessed April 2026
[37] The Business Times. Mitsui OSK inks financing deal for Singapore LNG terminal with banks including DBS, OCBC. December 2025
[38] MOL. MOL Group Environmental Vision 2.2. April 2023 [
[39] MOL. Sustainable Finance. Accessed April 2026
[40] MOL. MOL starts commercial operation of FSRU for Indonesia's Jawa 1 LNG-fired power plant – Asia's 1st gas-to-power project using an FSRU. April 2024

expanded fossil-linked assets that may continue operating for many years. MOL's use of proceeds does not align with the Singapore-Asia Taxonomy for Sustainable Finance,[41] which considers transitional activities only for existing infrastructure, not for new assets. DNV Business Assurance Japan, provider of a second-party opinion, stated that the loan taken out by MOL was aligned with the ICMA's Climate Transition Finance Handbook.[42,43] Yet, it results in locking in the use of gas despite ready alternatives.

The bigger issue is that lower-carbon alternatives are already available to MOL. A combination of solar power plus batteries can be used instead of the Indonesian LNG-fired plant. Electric ferries are also available in place of LNG-fuelled ferries.[44,45] The ICMA's Climate Transition Finance Handbook refers to analysis supporting the technological or economic unfeasibility of lower-carbon alternatives in the local context. That is an important principle, but the guidance does not set out clearly how this feasibility test should be applied in practice. The OECD also states that "transition finance is considered most relevant for sectors, industries, and activities where there is no feasible low-carbon alternative. Feasibility therefore is central to assessments of eligibility, which in turn influences carbon lock-in exposure."[46]

In practice, a transition label should be harder to justify where feasible lower-carbon alternatives exist, particularly if the financed activity is greenfield fossil infrastructure rather than the managed phasing down of an existing asset.

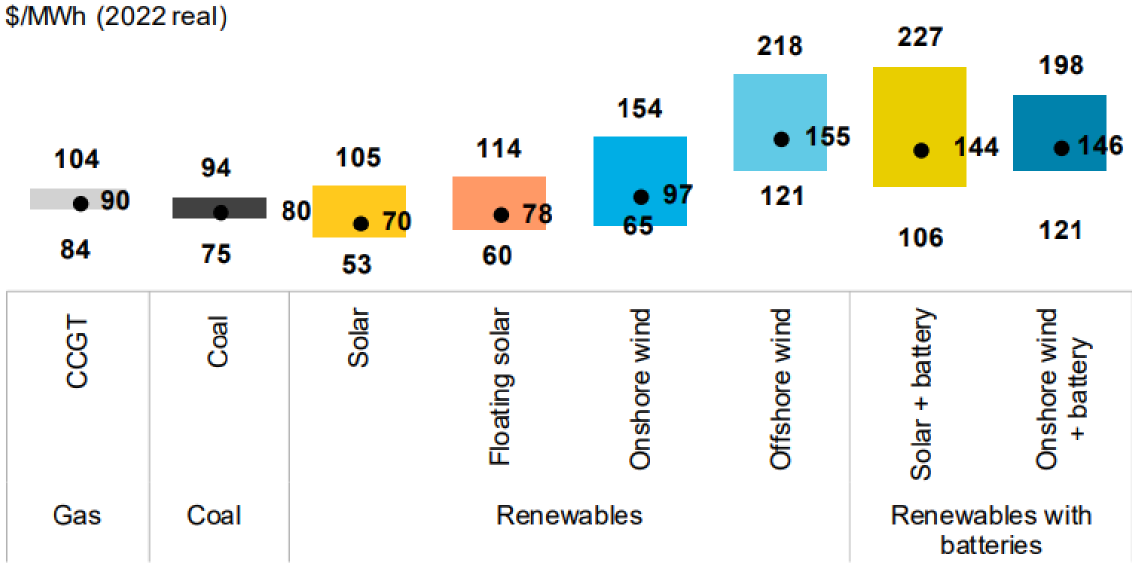
Another example is Vietnam's conversion of its Cong Thanh coal plant to LNG.[47] This may be considered eligible under the ASEAN Taxonomy for Sustainable Finance Version 4, yet the cost evidence suggests that lower-carbon alternatives, including solar power and combinations of storage and other system-balancing measures, may already be economically attractive.[48,49,50]

The point here is not that every system can be converted easily under identical conditions, but that **a transition label should not be tagged on by default simply because a project is an improvement on coal.** Where alternatives are technically and economically viable, financing a new gas-based pathway cannot be assumed to be climate transition-aligned by international standards if the transition finance market aims to be interoperable.

Vietnam's conversion of its Cong Thanh coal plant to LNG may be considered eligible under the ASEAN Taxonomy, yet the cost evidence suggests lower-carbon alternatives (solar power plus combinations of storage and other system-balancing measures) may already be economically attractive.

[41] MAS. Singapore-Asia Taxonomy for Sustainable Finance. Section 2.5. December 2023
[42] Shippax. MOL concludes 'transition loan' contract for 2 LNG-fueled ferries - First use of transition loan in Japan, selected as model for METI climate transition finance. September 2021
[43] MOL. Transition linked loan framework. October 2021
[44] International Maritime Organization. Annex 14 Guidelines on Life Cycle GHG Intensity of Marine Fuels. July 2023
[45] ScienceDirect. Comparative analysis among different alternative fuels for ship propulsion in a well-to-wake perspective. February 2024
[46] Organisation for Economic Co-operation and Development. Mechanisms to prevent carbon lock-in in transition finance. September 2023
[47] The Investor. Principle agreement signed for 4,500 MW LNG power project in central Vietnam. August 2025
[48] ASEAN Taxonomy Board. ASEAN Taxonomy For Sustainable Finance. November 2025
[49] BloombergNEF. Vietnam: A techno-economic analysis of power generation. October 2023
[50] Responsible Renewables Infrastructure. ReNew's round-the-clock (RTC) hybrid renewable energy project: Pioneering 24/7 clean energy in India under India's 1st RE RTC project. August 2025

Figure 5. Vietnam's Levelised Cost of Energy of New Power Plants by Technology, 2023



Source: BloombergNEF

A related issue is the distinction between existing and greenfield assets. This paper has argued that transition finance is most credible when tied to the decarbonisation or managed retirement of an existing high-emitting activity. The credibility claim becomes much weaker when the proceeds go to new fossil-linked assets. A transition label may be more defensible where financing supports a time-bound conversion or phasing out of an existing carbon-intensive asset with clear sunset provisions. It is much harder to justify where financing supports the construction of new fossil infrastructure without an equally clear and enforceable pathway out.

A clear exit strategy is important because carbon lock-in is not only a climate integrity issue. It is also a financial risk issue. Assets whose business case depends on prolonged fossil fuel use may face rising stranding risk, policy risk and refinancing risk over time. A transition label that does not distinguish adequately between credible transition steps and fossil lock-in can therefore be weakened in its usefulness in signalling forward-looking climate alignment.

The ICMA's guidelines would be stronger if it moved beyond general disclosure of lock-in risk and set clearer expectations on when a transition label should not be used. In particular, the guidance should be amended to make it clear that:

- **Transition finance should not normally support greenfield fossil-fuel infrastructure, unless there is a clear, time-bound and enforceable link to the retirement of higher-emitting assets;**
- **Activities with continuing emissions should be expected to demonstrate that lower-carbon alternatives are not yet technically or economically feasible, using evidence appropriate to the local context. This feasibility test should be applied more rigorously where the financed activity involves long-lived infrastructure or creates new fossil dependence; and**
- **The guidance should give stronger weight to sunset provisions, retirement pathways and end-state**

The ICMA does not need to prescribe one universal technology pathway across all markets. But it does need to provide stronger guard rails on when the transition label ceases to be credible.

alignment with low-carbon assets, rather than allow transition claims to rest primarily on relative emission improvement.

The ICMA does not need to prescribe one universal technology pathway across all markets. But it does need to provide stronger guard rails on when the transition label ceases to be credible. Without clearer safeguards against carbon lock-in, the guidance risks allowing transition finance to be used not only for decarbonisation, but also for prolonging fossil-dependent systems under a lower-emission narrative. That is precisely the ambiguity that weakens investor confidence in labelled markets.

Conclusion

A weak or overly broad definition of "climate transition" can undermine the credibility and growth of transition-labelled markets. Labelled debt markets are now large enough that the credibility of definitions matters materially for investor confidence and market development.[51] Market experience, such as in sustainability-linked bonds, also shows that investors respond quickly when sustainability claims lack credibility or are tied weakly to measurable outcomes. This is one reason why definitions and guard rails around transition finance matter.

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Japan's transition bond market provides an early market signal. Despite significant sovereign issuance and active government promotion,[52] foreign investor participation appears to have remained limited.[53] The Anthropocene Fixed Income Institute (AFII) has also reported that the country's sovereign Climate Transition Bonds have generally not achieved a positive greenium.[54] While this does not on its own prove that Japan's broader "transition" framing has diminished demand, it is consistent with the view that weak or divergent transition definitions may be limiting investor confidence.

For transition-labelled markets to be credible, **the distinction between green and transition must be clearer.** Green labels should apply to activities that are already low-carbon or environmentally sustainable, including in high-emitting sectors. Transition labels should be reserved for activities that directly support decarbonisation from high to low emissions. This distinction will ensure investors treat the label as meaningful.

The definition of climate transition must therefore be narrowed down to activities that are genuinely part of that shift. Activities whose climate relevance is indirect, uncertain or dependent on broader industrial or commercial uses should not qualify automatically. Where an activity may serve multiple purposes, including providing energy security and industrial competitiveness, eligibility should be limited to applications that directly and demonstrably reduce emissions.

Entity-level transition credibility must also be treated as a core condition of the label. This includes assessing whether the issuer's broader strategy aligns with decarbonisation, including Scope 3 emissions where material. Without that wider lens, a transition label may apply to individual expenditures while overlooking whether the issuer's overall business model is consistent with a credible low-emission pathway.

[51] Climate Bonds Initiative. Sustainable debt: Global state of the market Q3 2025. Accessed April 2026
[52] International Financing Review. Japan funds climate transition. February 2024
[53] The Japan Times. Japan wants cash for its green transition. But what are investors actually backing? March 2024
[54] AFII. Japan's transition bonds. February 2026

Stronger safeguards are needed to prevent carbon lock-in. Activities presented as "transition" should not entrench long-term dependence on fossil fuels or delay alignment with low-emission end-states. Sunset provisions, retirement pathways and clear end-state alignment are particularly important to ensure that transition-labelled activities are genuinely transitional rather than a softer form of fossil lock-in. This would improve market confidence and reduce long-term financial risk.

Taken together, these issues suggest that the ICMA should proceed cautiously before establishing formal transition principles. An external review of the current guidance, including public consultation, would help test whether the framework provides sufficiently clear and credible guard rails for market use. It would also give market participants an opportunity to identify where the definition should be strengthened before it is further institutionalised.

Figure 6. Summary: Flaws of Transition Finance Guard Rails and Investor Implications

Guard Rail or Issue	ICMA	LMA	ESI Analytical Concern
Boundary between green and transition	**Partial.** Leaves classification to issuer	**Partial.** Requires 'absence of low-carbon alternatives' but allows broad interpretation	Weakens label integrity by blurring transition funds with conventional green finance; transition should instead be reserved for decarbonising hard-to-abate, high-emitting assets and processes
Issuer transition credibility	**Weak.** Relies on issuer strategy, but expectations are broad and only on a best-efforts basis without firm Scope 3 requirements	**Included.** Embeds borrower transition strategy more clearly but does not mandate a full value-chain test	Transition labels should depend on not only the project but also credibility of issuer's wider decarbonisation pathway
Definition of transition and sectoral scope	**Weak**. Project list is temporary, non-exhaustive and open-ended	**Weak**. Permits broader cross-sectoral industry application	An open-ended definition risks stretching eligibility to almost anything, whereas transition should be limited to climate-relevant decarbonisation in existing hard-to-abate, high-emitting sectors, with explicit exclusions
Test on availability of feasible low-carbon alternative	**Weak**. Included, but loose and issuer-led	**Partial**. Included, but defines feasibility loosely	Weak testing risks allowing fossil pathways where cleaner options are available. The test should be evidence-based, site-specific and tightly defined
Safeguards against carbon lock-in	**Partial**. Acknowledges lock-in risk but relies mainly on issuer best-efforts mitigation and disclosure	**Stronger than ICMA but still incomplete**. Treats lock-in avoidance more seriously but stops short of firm eligibility limits	Without stronger safeguards, transition labels can legitimise assets that entrench rather than phase down fossil fuels. Eligible activities should be time-bound and tied to retirement or conversion of existing high-emitting assets to low-carbon end-state

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