

Asian banks should steer clear of transition technologies due to carbon lock-in fallout

2 March 2023, Singapore – Financing fossil fuel-based transition technologies, such as the ammonia and coal co-firing technology advocated by Japan, entails outsized negative outcomes associated with carbon lock-in that can hinder the achievement of net zero goals in ASEAN countries, according to the latest report by Asia Research & Engagement (ARE).

The report – Banking on Transition Technologies – reviews recent guidelines on transition finance for Asia, namely the "Asia Transition Finance Guidelines^[1]" and "Technology List and Perspectives for Transition Finance in Asia^[2]." In the review, ARE found that these guidelines have been influenced by Japanese energy policies, which validate and promote CCUS and ammonia co-firing in the power sector.

Neither guideline takes into account the advantageous circumstances of ASEAN countries when it comes to investing in renewable energy. The definition of transition finance is misguided and is treated as a bucket for all technologies between brown and green economy. Thus, these guide lines developed by the ATF Study Group and ERIA are, at best, inappropriate and, at worst, disruptive to the progress of energy transition in Southeast Asia.

ASEAN countries like Indonesia, the Philippines, and Vietnam do not face technical challenges as high as Japan in accommodating additional renewable capacity. According to the International Energy Agency, ASEAN's renewable capacity is expected to grow by 65% or more in 2021-2026^[3]. ASEAN countries can also benefit from the regional interconnection of power systems and lower costs of grid upgrades^[4]. Banks may therefore find it more economically attractive to finance grid capital expenditures that enable more renewable power.

While investing in renewables in ASEAN is a feasible option, the same has yet to be established for the transition technologies recommended by the recent guidelines, with multiple sources questioning their commercial viability, effectiveness, and cost competitiveness. The emission reduction from CCUS is unclear, and most CCUS projects in the past three decades have failed [5].

As for ammonia-fired technologies, they are still in the prototype stage and not commercially proven therefore, do little to reduce emissions. BNEF's analysis shows that ammonia co-firing emits more than twice the level of forecasted emission for power generation based on IEA's Net Zero Emissions by 2050 Scenario^[6]. Even if the co-firing rates can deliver lower emissions compared to coal, the cost of this technology is prohibitively high. According to Transition Zero, even 20% co-firing of the cheapest grey ammonia is double the cost of coal^[7]. The cost only rises with blue and green ammonia.

Banks seeking to achieve net-zero goals may face outsized negative outcomes associated with fossil fuel lock-in by following this guidance and financing such transition technologies. Banks in Southeast Asia are recommended not to rely solely on the guidelines and to develop their own robust



underwriting standards for these technologies that consider their own country's economic, policy, and technological circumstances.

Kurt Metzger, Director of Energy Transition at ARE emphasises;

"Asian banks will play a critical role in providing the funds needed for their customers transition to sustainable business strategies and achieve net zero by 2050. The banks will need to carefully evaluate their customers' technological pathways, build robust internal underwriting standards for each technology, and assess them in the context of the customer's country's decarbonisation goals and circumstances. The consequences of financing technologies that prolong the burning of fossil fuels and the associated risk of "carbon lock-in" if the technologies are not viable need to be evaluated against renewable technologies. The dire economic consequences for the region of not achieving NZ by 2050 are well documented, and banks need to incorporate a long-term view of their customer's technological pathways in their underwriting quidelines."

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About Asia Research & Engagement (ARE)

ARE is a social enterprise with the mission to catalyse corporate change through investor backed engagement. We provide structured collaborative engagement programmes that emphasise dialogue between listed companies and institutional investors. Our current themes are energy transition and its financing, sustainable and responsible protein, and sustainable real estate. ARE is headquartered in Singapore and was founded in 2013.

^[1] https://www.aggpm2022.org/downloads/ATF_Guidelines_1st_Edition.pdf

 $^{{}^{[2]}\} https://www.eria.org/uploads/media/2022_September_ERIA_Technology-List-and-Perspectives-for-Transition-Finance-in-Asia.pdf$

^[3] https://iea.blob.core.windows.net/assets/5ae32253-7409-4f9a-a91d-1493ffb9777a/Renewables2021-Analysisandforecastto2026.pdf

^[4] https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2022/Sep/IRENA_Renewable_energy_outlook_ASEAN_2022.pdf

^[5] https://doi.org/10.1016/j.enpol.2021.112546

^[6] https://assets.bbhub.io/professional/sites/24/BNEF-Japans-Costly-Ammonia-Coal-Co-Firing-Strategy_FINAL.pdf ^[7]https://static1.squarespace.com/static/605b4bcc5526904ff5589918/t/62066db231110622409e34eb/1644588483986/TransitionZero_C oal-de-sac_Report_final_full+report.pdf