SUSTAINABILITY-LINKED BONDS

Indorama: missed 2025 SLB targets

Jeannette Leong* | 20 Aug 2026 | 7 minute read

SUMMARY

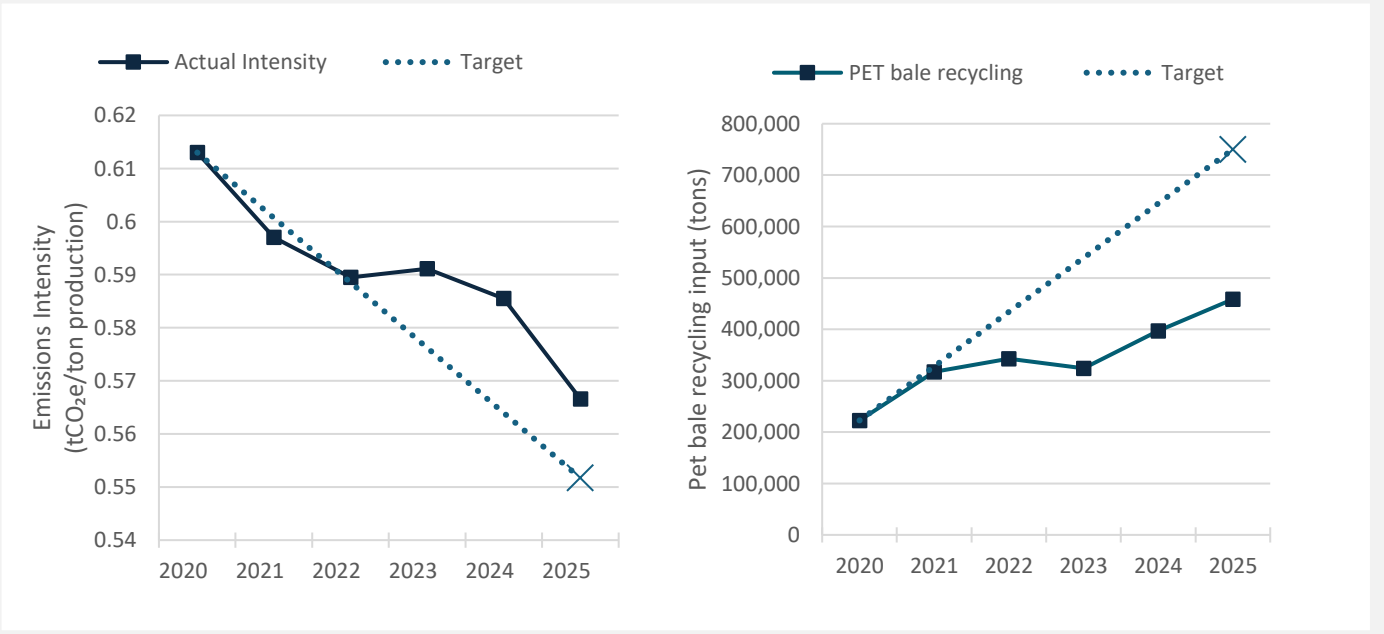
- Indorama's 2021 SLBs reached their first observation date in 2025, but two targets were not achieved.
- The results test operational KPIs used across its broader sustainability-financing programme, alongside ESG-linked and use-of-proceeds financing.
- They trigger a THB9.5 million EAC and carbon credit procurement obligation, rather than coupon step-ups.
- Instrument quality determines correspondence with GHG outcomes, while the emissions-related remedy does not address recycled-PET input.
- The third SPT, a 2030 renewable-electricity target, is off course.

Thailand-headquartered Indorama Ventures, one of the world's leading producers and recyclers of polyethylene terephthalate (PET) and a manufacturer of specialty chemicals and fibres, issued three Sustainability-Linked Bonds (SLBs) in 2021 linked to greenhouse gas emissions intensity, recycled PET input, and renewable electricity consumption. AFII previously examined these sustainability performance targets (SPTs) in its chemicals-sector SLB report.[1]

Two targets reached their 2025 observation date as of 31 December 2025 and were missed, as shown in Figure 1. Instead of triggering a coupon step-up, the bonds require Indorama to procure Energy Attribute Certificates (EACs), carbon credits, or both.

We unpack what the missed targets say about Indorama's broader sustainability-financing programme and whether the procurement obligation makes sense in the context of the different environmental outcomes represented by the company's KPIs. We also review progress towards the as-yet-untested 2030 renewable-electricity target.

Figure 1. Indorama SPT 1 and 2 actual and targets. Source: Indorama reports.



[1] "Chemicals sector: synthesising impact with SLBs", AFII, 13 Jul 2023.

*Author to contact: jle@anthropocenefii.org. See important disclaimer.

Existing bonds and KPI details

Indorama issued three THB SLBs in November 2021, described in Table 1. The 2026 (ISIN TH1027036B00) and 2028 (ISIN TH1027038B08) bonds share the same targets and 2025 observation date. The bond that matures in 2032 (ISIN TH102703C509) is linked to a 2030 renewable electricity consumption target. The three SPTs encompass Indorama's broader sustainability agenda, going beyond a pure emissions metric. SPT 1 measures operational decarbonisation through greenhouse gas emissions intensity. SPT 2 measures circularity through post-consumer PET recycling input. SPT 3 measures renewable electricity consumption.

Table 1. Details of Indorama SLBs. Source: Indorama reports.

ISIN	Maturity	Principal	Coupon	Observation date	Linked SPT	Status at publication
TH1027036B00	3-Nov-26	THB 3.0bn	2.48%	31-Dec-25	SPT 1: reduce Scope 1 and 2 market-based GHG intensity by 10% from 2020 baseline, from 0.6130 to 0.5517 tCO_2e/ton production. SPT 2: increase post-consumer PET bale input into recycling from 222,652 tons 2020 to 750,000 tons in 2025.	Missed
TH1027038B08	3-Nov-28	THB 2.0bn	3.00%	31-Dec-25		
TH102703C509	3-May-32	THB 5.0bn	3.60%	31-Dec-30	SPT 3: increase renewable electricity consumption from 2.89% in 2020 to 25% of total electricity consumption by 2030.	Not yet tested; below interim trajectory

SPT 1 and SPT 2 missed

Indorama reported that neither of the two 2025 SPTs linked to the 2026 and 2028 bonds was achieved. Actual GHG intensity was 0.5666 tCO_2e per ton versus the 0.5517 target, a 0.0149 tCO_2e per ton shortfall. PET bale input was 458,500 tons versus the 750,000 tons target, meaning the company achieved 61% of its target amount. Post-consumer PET bale input refers to used PET bottles and other PET material collected, compressed into bales and supplied to recycling facilities as feedstock.

Indorama attributes the GHG-intensity miss to high costs, limited scalability of decarbonisation technologies, capital constraints, business restructuring, increased production at carbon-intensive sites, production changes, and the timing of decarbonisation projects. It does not provide an equivalent explanation for the recycling miss: actual post-consumer PET bale input was 458,500 tons despite installed annual capacity of 837,000 tons. [2]

Although the two KPIs measure different outcomes, both trigger the same carbon credit or equivalent procurement obligation. The amount to be procured, and period in which they are to be obtained, differ by tranche. This is because the obligation is calculated at 0.20% per annum of the issue size and applied over the relevant interest-payment period.[3] The bond maturing in 2026 has one remaining quarterly remedy period, while the bond maturing in 2028 applies the remedy across four semi-annual periods, as shown in Table 2.

[2] Pg 8 "Annual Report 2025, Sustainability and Risk Management Committee Report", Indorama Ventures, 2025.
[3] "IVL Announces 2025 Sustainability Performance Results for Sustainability-Linked Bonds (IVL26NA and IVL28NA)", ThaBMA, 2 Jun 2026.

Table 2. Indorama SLBs remedy details. Source: Indorama reports

ISIN	Notional	Coupon impact	Remedy formula	Remedy following the 2025 results	Remedy as % of notional	Timing
TH1027036B00	THB 3.0bn	No coupon step-up; coupon remains 2.48%	0.20% p.a. of issue size, applied for one quarterly interest period	THB 1.5mn	0.05%, or 5 bps	Once, on the final interest payment date of 3 Nov 2026
TH1027038B08	THB 2.0bn	No coupon step-up; coupon remains 3.00%	0.20% p.a. of issue size, applied across four semi-annual interest periods	THB 8.0mn	0.40%, or 40 bps	Either THB 2.0mn per period across four interest payment periods, or one-time implementation of THB 8.0mn
Combined 2025-tested tranches	THB 5.0bn	No coupon step-up	Aggregate of the 2026 and 2028 remedies	THB 9.5mn	0.19%, or 19 bps	Across the two 2025-tested tranches

The wider sustainability-financing programme

Indorama's sustainability-financing programme rests on three pillars: financing linked to external ESG assessments, use-of-proceeds financing for eligible investments, and financing linked to operational sustainability KPIs. The 2021 SLBs marked the incorporation of the Group's GHG-intensity, post-consumer PET, and renewable-electricity targets into its debt issuances. Some of these indicators were subsequently used in a trade-finance facility and a loan refinancing.

Each pillar fulfils a different purpose. ESG-rating-linked financing connects financing terms to broad external assessments of the company's sustainability performance. Use-of-proceeds financing identifies the categories of investment supported. Operational KPI-linked financing assesses company-level progress against specified targets.

The distinction is relevant to the 2025 recycled -PET result. Indorama's USD300 million blue loan supported recycling capacity, renewable energy, and resource efficiency, but public reporting does not directly connect the performance of the financed projects with the Group-wide recycled-PET KPI. The 2025 result therefore cannot be used to assess individual blue-loan projects. It nevertheless shows that Group-wide post-consumer PET bale input remained below the target despite earlier financing for recycling expansion.

Table 3 summarises the principal financing approaches and their relevance to the 2025 SLB results. Full instrument-level details, including financing amounts, structures, and sustainability linkages, are provided in the Appendix.

Against this broader financing context, the next section considers whether the common procurement remedy corresponds to the distinct outcomes measured by the two 2025 KPIs.

Table 3. Summary of Indorama's sustainability-financing programme. Source: Indorama reports.

Financing approach	Principal examples	Sustainability linkage	Relevance to the 2025 SLB results
ESG-rating-linked financing	2019 incentive loans; 2020 sustainability-linked Ninja loan; 2022 ESG-linked revolving credit facility	Links financing terms to broad external ESG ratings or assessments	Not directly linked to the GHG-intensity and recycled-PET targets observed in 2025
Use-of-proceeds financing	2020 USD300 million blue loan; 2024 USD200 million IFC sustainability loan	Identifies investments supported, including recycling, renewable energy and resource efficiency	Public reporting does not directly connect project-level outcomes with the Group-wide SLB KPIs
Operational KPI-linked financing	2021 THB10 billion SLBs; 2023 USD50 million trade-finance facility; 2024 USD255 million Ninja loan refinancing	Links financing terms to GHG intensity, post-consumer PET bale input, renewable-electricity consumption or a combination of these indicators	Extends the use of operational KPIs across several instruments and allows company-level progress to be assessed against defined targets

Do the remedies correspond to the sustainability outcomes?

The procurement obligation is the contractual consequence of the missed SPTs, but its relationship to the underlying environmental outcome differs by KPI. The GHG-intensity miss can be translated into an estimated absolute emissions shortfall using Indorama's 2025 production. This allows the potential volume of carbon credit purchases to be compared with the shortfall on an illustrative basis. The recycled-PET input shortfall cannot be converted directly into the same unit.

Table 4. Estimated emissions shortfall. Source: Indorama reports and AFII's calculations

Item	Value
2025 target intensity	0.5517 tCO_2e/ton production
2025 actual intensity	0.5666 tCO_2e/ton production
Intensity shortfall	0.0149 tCO_2e/ton production
2025 production	12.84mn tons
Estimated emissions shortfall	191,316 tCO_2e

The two target misses create a combined THB9.5 million remedy across the 2026 and 2028 tranches. The bond terms require Indorama to procure EACs, offset emissions via purchased carbon credits, or use a combination of both, and to provide evidence of the transaction to the bondholders' representative within seven business days.

As the actual instruments have not yet been procured, Table 5 contains an estimate of the nominal volume of carbon credits that could be purchased if the full THB9.5 million were spent on them. Bloomberg benchmarks illustrate the wide range of market prices. This analysis assumes that these benchmarked credits are eligible under the bond documentation. The conversion assumes USD/THB of 36.5.

Table 5. Scenario analysis on carbon credit purchases. Source: Bloomberg and AFII's calculations.

Scenario	Bloomberg reference	Carbon-credit price	THB equivalent	Combined THB 9.5mn remedy	Nominal volume as a percentage of the estimated shortfall.
Low-priced generic credit	CBL Global Emissions Offset	US$0.17/$tCO_2e$	THB 6.21/tCO_2e	1,531,000 tCO_2e	800%
Quality-screened credit	Core Carbon Principles	US$5.45/$tCO_2e$	THB 198.93/tCO_2e	47,800 tCO_2e	25%
CORSIA-eligible credit	CORSIA Phase 1	US$9.15/$tCO_2e$	THB 333.98/tCO_2e	28,400 tCO_2e	15%

The implied break-even price is approximately THB 49.7/tCO_2e, calculated as THB9.5 million divided by the estimated 191,316 tCO_2e shortfall. At or below this price, the company could purchase a nominal credit volume equal to the estimated GHG shortfall. At the Bloomberg Core Carbon Principles and CORSIA Phase 1 reference prices, the purchasable volumes would equal approximately 25% and 15% of the estimated shortfall, respectively.

This comparison is between a one-off purchase of carbon credits and Indorama's estimated emissions shortfall for FY2025. It should not be interpreted as equivalent to reducing operational emissions over the long term. An operational reduction achieved in 2025 could reasonably be expected to lower emissions in subsequent years if sustained, whereas retiring carbon credits against the 2025 shortfall compensates for that quantity of emissions only once and does not itself reduce Indorama's future operational emissions.

These comparisons concern nominal quantities only. They assume that each benchmarked credit is permitted under the bond documentation, and that there is no imposed standard for quality, additionality, permanence, or environmental integrity.

The same comparison is not available for SPT 2. Unlike GHG emissions, recycled-PET input is not measured in tCO_2e. The contractual remedy funds EACs and/or carbon credits only, rather than additional recycled-PET input or recycling investment. It therefore does not directly address the metric against which performance was assessed.

The above calculations remain illustrative until Indorama discloses the actual mix and characteristics of the remedy instruments. An EAC-based remedy would require a separate assessment because EACs are denominated in MWh rather than tCO_2e. Relevant information for a similar analysis would require the amount procured, geography, vintage, and applicable grid emissions factor.

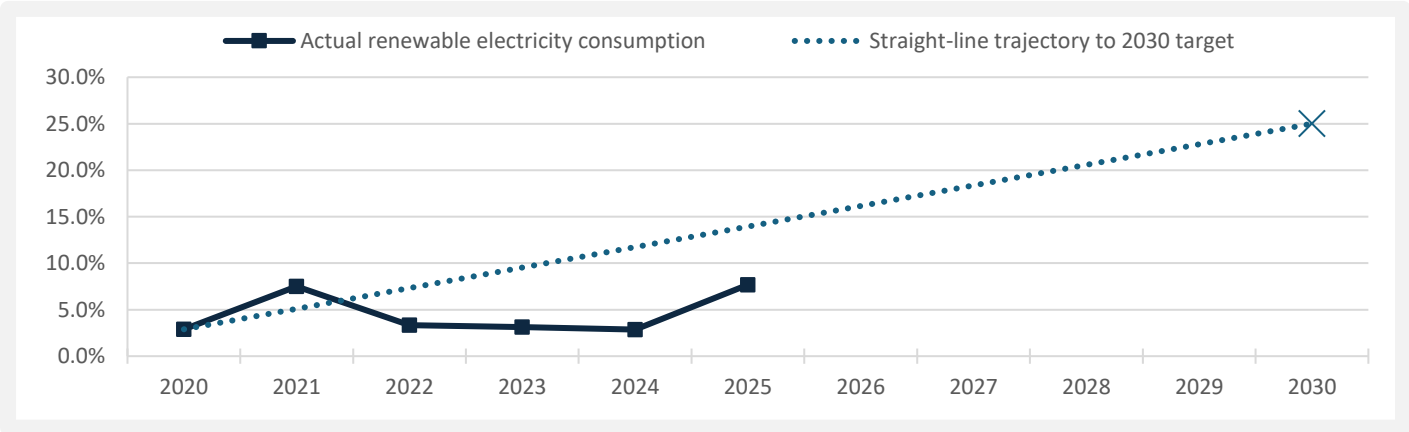
As of publication, Indorama had not publicly disclosed whether the obligation would be satisfied using EACs, carbon credits, or a combination of both. Nor has it discussed the standards, registries, project types, geography, vintage, or retirement schedule of the selected instruments. The first procurement deadline falls on 3 November 2026. Disclosure of these details would allow investors to assess how closely the contractual consequence corresponds with each missed sustainability outcome.

SPT 3: renewable electricity target

While the first two SPTs reached their observation date in 2025, SPT 3 will be assessed in 2030 against a renewable-electricity consumption target of 25%. Indorama's renewable-electricity consumption was 7.68% in 2025, below both its stated 10% interim target and the approximately 13.95% level implied by a straight-line path from the 2020 baseline to the 2030 target, as shown in Figure 2. Reaching 25% would require a further increase of 17.32% by 2030, equivalent to approximately 3.46% per year on a simple straight-line basis. The SPT has not yet been assessed, but the current trajectory indicates execution risk.

Progress on SPT 3 may also affect the market-based Scope 2 component of the GHG-intensity KPI. Greater disclosure is needed on how the KPI treats onsite generation, direct renewable-electricity procurement, power purchase agreements, and electricity certificates. This would help investors understand how progress towards the renewable-electricity target affects the reported emissions-intensity KPI.

Figure 2. SPT 3: renewable electricity consumption. Source: Indorama reports.



Conclusions

Indorama's first SLB observation date serves as a useful case study on the complementary roles of use-of-proceeds and sustainability-linked financing. Use-of-proceeds instruments earmark capital for recycling and resource-efficiency projects, while the SLBs publicly test whether company-level sustainability outcomes are achieved. The missed recycled-PET target does not demonstrate that each financed project failed, but it does show that the Group-wide recycling outcome remained below the level embedded in the financing framework.

The contractual remedy for the missed SPTs only somewhat aligns with the consequences of Indorama falling short on its sustainability objectives. For the GHG KPI, the potential carbon credit volume can be compared with the estimated emissions shortfall, but the result is price dependent and does not by itself establish environmental equivalence. For the recycling KPI, the remedy does not directly address the metric that was missed because it does not require additional recycled-PET input or recycling investment.

The 2030 renewable-electricity SPT remains untested, but 2025 performance suggests a degree of execution risk. Further disclosure on renewable-electricity procurement and the EACs or carbon credits used to satisfy the 2025 remedy would allow investors to assess whether the contractual consequences are aligned with the sustainability outcomes represented by the KPIs.

Appendix

Table 6. Evolution of Indorama's sustainability financing and KPI framework. Source: Indorama reports.

Year	Instrument	Amount	Sustainability linkage	Alignment with Group sustainability strategy	2025 status
2019	Green / Positive Incentive Loans	USD100mn + EUR100mn	Interest margin linked to improvement in Indorama's ESG rating.[4]	Broad ESG performance and governance.	Rating-linked. No publicly disclosed performance assessment.
2020	Sustainability-linked Ninja Loan	USD255mn (5-year)	Interest linked to improvement in the company's ESG score. Facility refinanced existing debt rather than funding new projects.[5]	Broad ESG performance.	Rating-linked. No publicly disclosed KPI outcome.
2020	Blue Loan (IFC, ADB, LEAP, DEG)	USD300mn	Financing for PET recycling expansion in Thailand, Indonesia, the Philippines, India and Brazil, together with renewable energy and resource-efficiency investments. Publicly linked to the ambition of recycling 50 billion PET bottles annually by 2025.[6]	Supports the Group's circular economy strategy and recycling targets.	Financed recycling capacity. Company-level post-consumer PET bale input remained below the 2025 target.
2021	Sustainability-Linked Bonds	THB10bn	Linked to: (i) 10% reduction in Scope 1 and 2 market-based GHG emissions intensity by 2025; (ii) 750,000 tons of post-consumer PET bale input by 2025; and (iii) 25% renewable electricity consumption by 2030.[7]	Directly aligned with the Group's climate, circularity and renewable energy targets.	GHG target missed. PET target missed. Renewable electricity remains below interim trajectory.
2022	ESG-linked Revolving Credit Facility	EUR275mn	Margin linked to improvements in ESG Risk Rating / ESG Risk Management performance.[8]	Supports broader ESG management.	Rating-linked. No publicly disclosed pricing outcome.
2023	Sustainability-linked Trade Finance Facility	USD50mn	Linked to the same three KPIs used in the 2021 SLBs.[9]	Extends the Group's operational KPI framework into trade finance.	Same company-level KPI progress as the SLBs. Contractual outcome not publicly disclosed.
2024	Sustainability-linked Ninja Loan (refinancing)	USD255mn (5-year)	Linked to Scope 1 and 2 GHG emissions intensity and post-consumer PET bale input.[10]	Directly aligned with two Group sustainability targets.	Company-level indicators below target. Loan-specific outcome not publicly disclosed.
2024	Syndicated Loan	USD500mn	Conventional syndicated loan with an option to convert into a sustainability-linked loan. KPIs not disclosed.[11]	Potential future sustainability linkage.	Conversion not publicly disclosed.
2024	IFC Sustainability Loan	USD200mn (7-year)	Recycling investments in Thailand, Indonesia and India, with an option to convert into a sustainability-linked facility.[12]	Supports the Group's circular economy strategy.	Supports future recycling expansion. KPI framework not yet disclosed.

[4] "IVL Lands Thailand's First Ever Green Loans", Indorama Ventures, 29 Apr 2019.
[5] "Indorama Ventures Secures Thailand's First Sustainability-Linked Ninja Loan", Indorama Ventures, 16 Sep 2020.
[6] "New Blue Loan to Help Indorama Ventures Recycle 50 Billion PET Bottles a Year by 2025", IFC, 17 Nov 2020.
[7] "Indorama Ventures Issues THB 10 Billion Sustainability-Linked Bond Driving Climate Action and Sustainable Production", Indorama Ventures, 1 Nov 2021.
[8] "Indorama Ventures Signs €275 Million ESG-Linked Revolving Credit Facility", Indorama Ventures, 22 Nov 2022.
[9] "Indorama Ventures and SMBC Inaugurate Thailand's First Sustainability-Linked Trade Finance Facility", Indorama Ventures 28 Sep 2023.
[10] "Indorama Ventures Raises US$255 Million Through Ninja Loan as Part of Refinancing Program", Indorama Ventures 3 Apr 2024.
[11] "Indorama Ventures Raises US$500 Million Through a Syndicated Loan from HSBC and Standard Chartered Bank", Indorama Ventures, 23 May 2024.
[12] "Indorama Ventures Secures US$200 Million Loan from IFC to Drive Sustainability Program", Indorama Ventures, 18 Jul 2024.

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