트레이드 렌즈
TRADE LENS

투자에 초점을 맞추다.

LENS INSIGHT / No.13

EU CBAM · KOREAN STEEL · CARBON COST & PRICING

The EU CBAM Bill

Who Bears the Carbon Cost of Korean Steel?

Certificate calculations, emissions evidence and export-price negotiation

CALCULATION

Net chargeable emissions

EVIDENCE

Credits and verification

BARGAINING

Prices, margins and demand

The legal bill goes to the EU declarant.
The economic burden runs through the value chain.

Separate compliance liability from economic incidence, and identify when cleaner steel preserves the producer's earnings.

Analysis date 2026.11.07

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INDUSTRY STRUCTURE · MARGINS · COST ALLOCATION · REGULATION

01 / RESEARCH VIEW

The declarant pays; bargaining allocates the burden

TradeLens view | Net carbon cost matters—and so does who retains the saving.

Core conclusion

CBAM is not a uniform percentage tariff on Korean steel. Product-level emissions, free-allocation adjustments and eligible carbon-price deductions determine the bill; sourcing alternatives and contracts allocate it. The base case is **differentiation in margins and order competitiveness**, not an automatic collapse in exports. [1] [3]

Calculation

What emissions and adjustments enter the certificate count?

Evidence

Can product data be traced back through precursor inputs?

Bargaining

Who keeps the benefit of a lower compliant cost?

The authorised EU CBAM declarant carries the reporting and surrender obligations. A Korean producer may nevertheless bear the cost through a lower selling price, data and verification spending, or contract adjustments. Where its EU subsidiary is the importer, export and import margins should still be distinguished within the group. [1]

The missing variable in a simple “carbon tariff” story

Lower emissions can reduce the value chain’s bill without improving the producer’s return on investment: a buyer may retain all of the saving. Hard-to-replace quality, qualification and delivery capabilities can help a supplier defend its net price. This is an economic interpretation, not a claim about any company’s undisclosed negotiations.

What would change the view

The thesis strengthens if verified lower-emission products support better net prices and repeat orders. It weakens if price concessions, verification and production costs absorb more than the certificate saving.

02 / TIMING & PRICE

2026 imports create a later cash obligation

Import period, pricing period and certificate-purchase date are different clocks.

01
Import & record
Definitive phase
from 1 Jan 2026

→

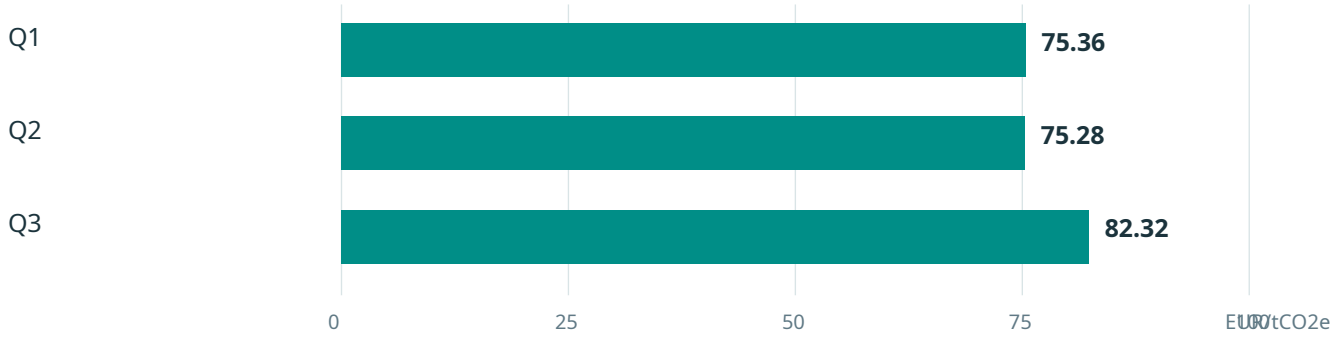
02
Purchase
Sales begin
1 Feb 2027

→

03
Declare & surrender
By 30 Sep 2027
for 2026 imports

A 2026 import uses its applicable quarterly certificate price. Buying the certificate in 2027 does not reprice that import at the purchase-day market level. The weekly pricing system from 2027 applies on a different basis. [2] [5]

Published 2026 certificate prices [6]



Q3 was published on 5 October. Q4 is unpublished at the cut-off, with publication scheduled for 4 January 2027. Q3 was 9.4% above Q2 (calculated). [5] [6]

Variable	Commercial implication
Import quarter	Define the applicable pricing period; do not substitute an order or shipment date.
Settlement lag	A price concession can make the producer bear costs before certificate purchase.

Cash-flow interpretation

Delayed surrender does not remove the cost. Discounts, holdbacks and true-ups determine which party funds the gap and for how long.

03 / PRODUCT BOUNDARY

Start with the imported product, not a group average

CN classification, precursor inputs and production route determine the relevant boundary.

CBAM coverage starts with the imported good's CN code and legal scope. Iron and steel products listed in Annex II use direct emissions, while relevant precursor emissions must be traced through the production chain. Agglomerated iron ore and other exceptions require separate treatment. [1] [7]

01
Precursor
Pig iron / slab
embedded emissions

→

02
Processing
Rolling / coating
attributable emissions

→

03
Exported good
Product / output match
share with declarant

Item	Relevant basis	Misleading shortcut
Emissions	Product, installation, process and precursors	Apply the corporate Scope 1–2 reduction rate directly
Product label	Reconcile the method and verification boundary	Assume an LCA or EPD is automatically CBAM-compliant
Mass exemption	Annual aggregate net mass per importer: 50 tonnes	Treat each exporter or shipment as separately exempt

The 50-tonne test aggregates relevant iron/steel, aluminium, cement and fertiliser imports. It does not cover electricity or hydrogen. Crossing it brings the covered annual imports into scope, not merely the excess tonnes. [2]

The processor's practical bottleneck

Low emissions at the finishing plant are not enough if precursor evidence is missing. The key capability is a continuous product-data chain between upstream suppliers and the EU declarant.

04 / CERTIFICATE ENGINE

Why “pay on just 2.5% of emissions” is wrong

The 2026 factor adjusts free allocation; it is not a universal charge on actual emissions.

A compact way to read the calculation

N = q × max(0, e − F − d)
Certificate cost C = P × N
q: imports; e: eligible emissions per tonne; F: embedded free-allocation adjustment per tonne; d: accepted carbon-price deduction in certificate equivalents per tonne; P: applicable certificate price. Calculate separately by relevant product and period. [1] [3] [7]

The 2026 CBAM factor is 97.5%. In a simplified illustration with a cross-sectoral correction factor (CSCF) of 1, F = benchmark b × 0.975. For complex goods, the adjustment incorporates the relevant process and precursor chain. Actual-emissions and default-value methods also use different benchmark columns. [3] [4] [14]

Calculation	Meaning
Misleading shortcut e × P × 2.5%	Assumes 97.5% of all actual emissions is automatically deducted.
After adjustments (e − F − d) × P	Subtracts the applicable free-allocation and accepted carbon-price adjustments.
Zero floor	A negative residual is not a transferable credit against another good.

The competitive implication

The decisive quantity is the **gap between product emissions and eligible adjustments**, not a small headline phase-in percentage. That gap can change EU landed cost even for products with the same origin and selling price.

05 / ILLUSTRATIVE BILL

The emissions gap changes the bill at one carbon price

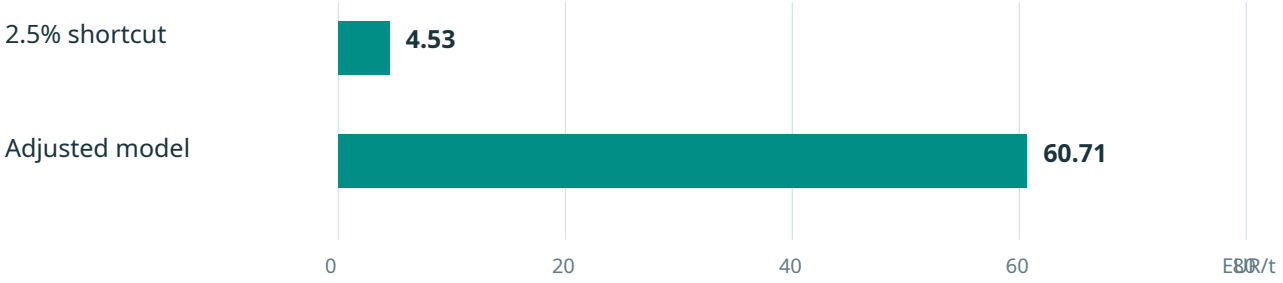
Illustration | Not an actual Korean product, official product benchmark or company forecast.

Assume b=1.50, CSCF=1 and the 2026 factor 0.975, so F=1.4625. Set carbon-price deduction d=0 and use the published Q3 2026 price of €82.32. Only emissions e vary; the adjustment is held constant. [6] [14]

Emissions e	Residual emissions	Cost / tonne of steel
1.50	0.0375	€3.09
1.70	0.2375	€19.55
2.20	0.7375	€60.71

e and F: tCO2e per tonne of goods. Displayed costs are rounded; calculations use unrounded values. F can change with product or route, so this table isolates only one variable.

At e=2.20, the shortcut materially understates cost



The adjusted model costs €60.711 per tonne, or €607,110 on a hypothetical 10,000 tonnes. Reducing e from 2.20 to 1.70 saves €41.16 per tonne with the other inputs unchanged. This is a saving at the import stage—not automatically the producer's profit.

> **What the example establishes**
>
> Abatement can have economic value, but a valid comparison must hold boundaries and adjustments consistent. A real bill requires the applicable legal benchmarks, precursor data, verified emissions and deductions.

06 / VALUE OF EVIDENCE

Evidence pays back only if volume and value align

The actual-emissions route requires accredited verification. Submission alone does not guarantee a saving. [8]

Verified data can reduce a bill when the applicable default exceeds actual emissions. Linking precursors, monitoring, allocation and verification still costs money. A producer's investment case must use **the share it can recover**, not the value chain's total saving.

Illustrative input	Assumption or result
Comparison emissions	2.50 → 2.20 tCO2e / tonne of goods
Unchanged adjustment / price	F=1.4625, d=0, P=€82.32
Value-chain saving	€24.696/t · €246,960 on 10,000t
Annual incremental evidence cost	€15,000 · an assumption in this example

100% retained

608 tonnes
15,000 / 24.696, rounded up

50% retained

1,215 tonnes
Only half the saving reaches the producer

These payback volumes are not the legal 50-tonne exemption. F may change when calculation methods change. The example isolates an assumed emissions gap; it uses neither a country default nor a market verification quote.

Commercial implication

If the producer funds the evidence, it needs an agreed price benefit, committed purchase volume or cost sharing. Better data alone does not improve its earnings when the buyer retains the whole saving.

07 / CARBON-PRICE DEDUCTION

A Korean allowance quote is not the deductible amount

The starting point is the eligible carbon price effectively paid for corresponding emissions.

The deduction is not simply “EU price minus the Korean allowance quote.” The rules require corresponding emissions, evidence of payment and the effect of rebates or other compensation, including free allocation. Actual-payment evidence and the yearly default-carbon-price route are distinct. [1] [2] [7]

Evidence item	Role in the calculation
Emissions correspondence	Connect the exported product’s emissions to the carbon-price obligation
Effective payment	Use net burden after applicable free allocation, rebates and compensation
Evidence and certification	Support payment, currency conversion, period and independent certification
Method consistency	Use the legally permitted default-carbon-price route where defaults apply

Actual-emissions reporting can support an evidenced-payment claim. Default emissions permit only the yearly default-carbon-price deduction. Country defaults that the Commission may provide from 2027 are not assumed to be an already accepted deduction. [2]

Illustrative settlement—not an assumed K-ETS quote

Page 6 gives €60.711 per tonne before a carbon-price deduction. Assume an **accepted net deduction of €10 per tonne of goods**: the residual is €50.711. The €10 is not an allowance price per tonne of CO2; it is an already matched and converted deduction per tonne of product.

> **Who bears a deduction that does not materialise?**
>
> A quote may incorporate an expected deduction that later fails. Without a true-up allocation, the resulting dispute can erode margins. This report does not assume a Korea-wide deduction rate.

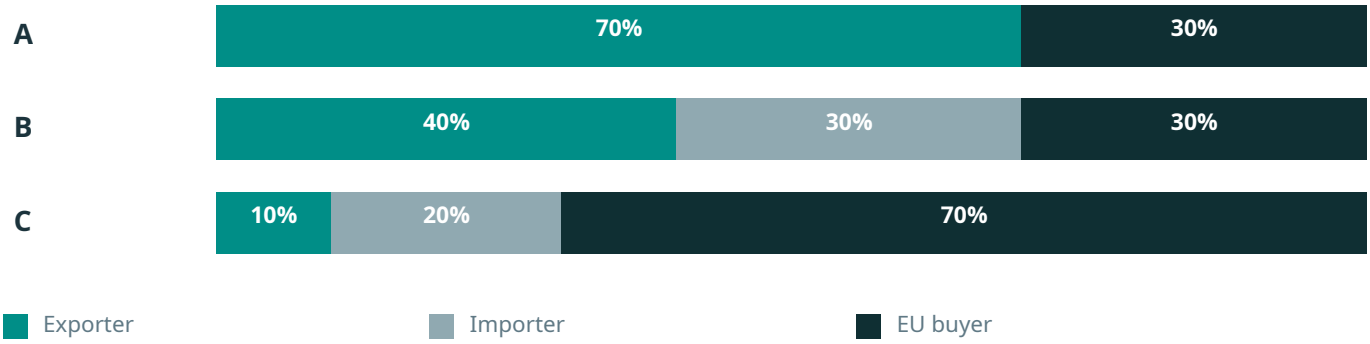
08 / ECONOMIC INCIDENCE

The same €60.71 bill can hit different margins

Illustrative incidence model | Separate the legal payer from the final economic burden.

Use the €60.711/t bill from page 6. A hypothetical producer sells at €700 with a unit variable cost of €630, leaving €70 of contribution before the new cost. Keep volume and non-carbon costs fixed and vary only the burden allocation.

One bill, three possible allocations



Case	Exporter burden	Residual contribution
A · exporter 70%	€42.50/t	€27.50/t
B · exporter 40%	€24.28/t	€45.72/t
C · exporter 10%	€6.07/t	€63.93/t

Shares are exporter/importer/EU buyer: A 70/0/30, B 40/30/30, C 10/20/70. They are not measured pass-through rates. The contribution is a model residual, not reported operating or net profit.

Bargaining depends on switching costs, product qualification, substitutes and demand elasticity. A commodity buyer with many alternatives can pressure the exporter’s netback. Passing the cost downstream can also reduce volumes and weaken fixed-cost absorption.

> **Core interpretation**
>
> Country-average carbon cost cannot predict company profit. Net price, volumes and contracts matter even when the statutory bill is identical. Low emissions and pricing power are different competitive advantages.

09 / CONTRACT ECONOMICS

Contract mechanics determine who keeps the value

Commercial review framework | Not legal advice or a set of drafted contract clauses.

The importer's surrender obligation does not by itself require full reimbursement by the Korean seller. The absence of an explicit carbon clause does not make the economic burden zero: it may shift through price negotiations and contract renewals. [1]

Variable to agree	Economic issue	Reference to specify
Price reference	Which quarter's certificate price?	Import period, published value and true-up date
Emissions / adjustment	Who pays for a method or data gap?	CN, route, precursors and consistent F
Evidence failure	Delay, rejection and correction costs	Responsibility and data deadlines
Carbon-price deduction	Expected versus accepted deduction	Evidence, reimbursement and reconciliation
Abatement premium	Who retains how much of the saving?	Volume, term, premium and verification conditions
Cash / change	Holdbacks, financing and legal changes	Final settlement, limits and change process

From model to contract

Break a carbon surcharge into emissions, price, deductions and responsibility. A verified producer's cost advantage becomes investment funding only when purchase terms allow it to retain value.

10 / KOREAN VALUE CHAIN

The carbon-data chain reaches beyond the steel mill

Large-mill investment alone does not solve every exporter’s compliance economics.

Korea’s definitive-period manual release highlights steel-processing and precursor examples. Even when the exporter does not make the primary steel, the required evidence starts upstream. Processors therefore need a data-delivery chain within their sourcing arrangements. [9]

Business type	Potential advantage	Remaining constraint
Integrated producer	Internal continuity of process and precursor data	Emissions intensity and recovery of abatement capital
Electric-arc producer	Potentially lower direct emissions by product and route	Scrap quality, qualification, precursors and adjustment differences
Tube / coating / processor	Quality, delivery and customer-specific processing	Traceable and verified purchased slab or coil data
Trader / distributor	Customer access and product aggregation	Supplier-specific product, period and evidence consistency

EU producers are also subject to the ETS; the market is not one where only imports pay for carbon. The free-allocation adjustment reflects this comparison. Equal rules do not mean identical actual costs: energy, scrap, labour, logistics and quality still shape total economics. [4] [7]

> **Value-chain outlook**
>
> Traceable upstream supply and hard-to-switch processing capability can be advantages. Margin pressure may concentrate where firms fund the evidence but cannot defend their selling price.

11 / INDUSTRIAL RESPONSE

Lower-carbon capacity is not a certified CBAM saving

POSCO and Hyundai Steel | Separate announced assets, plans and calculation boundaries.

Company disclosure	Economic significance	What it does not establish
POSCO Gwangyang EAF Completed 17 Jun 2026 2.5mt/year; about KRW600bn [10]	Additional production platform for lower-carbon steel	Nameplate capacity is not EU sales, qualified output or full utilisation
POSCO: up to about 75% reduction [10]	Crude-steel Scope 1–2 versus 2017–19 average; sensitive to scrap and power	Not a verified 75% reduction in product-level CBAM certificates
Hyundai Steel HyECOsteel 20%+ reduction versus its blast-furnace products [11]	Hybrid process and internal ISO 14044 cradle-to-gate calculation	Not an accredited CBAM result or a disclosed export premium

POSCO targets automotive and electrical steel mass production by 2030 using mixing and quality-control technology. Hyundai Steel describes hybrid-process and subsequent technology development. These are strategic choices; returns depend on saleable grades, utilisation, costs and customer contracts. [10] [11]

What a company-level analysis must establish

Do not multiply total installed capacity by an assumed carbon premium. Link actual EU-bound product volumes to like-for-like emissions and adjustments, incremental production costs and an achievable net premium.

12 / ABATEMENT RETURNS

Abatement returns depend on captured value

Illustration | Hold route, adjustment and volume constant; vary only retained value.

The e=2.20 → 1.70 improvement on page 6 saves €41.16/t. Assume incremental production cost of €25/t. Let α be the share captured through a premium or by resisting a price discount. The comparison is before capital spending, tax and financing costs.

Retained share α	Producer value captured	After incremental production cost
0%	€0.00/t	−€25.00/t
50%	€20.58/t	−€4.42/t
100%	€41.16/t	+€16.16/t

Required retained share

α = 25 / 41.16 = 60.7%
The producer must retain at least 60.7% of the certificate saving merely to cover the assumed extra production cost. Capital recovery requires additional returns.

At 100% retention and 10,000 tonnes, the residual is €161,600. It is not the return on a multi-million-tonne plant. A real investment also depends on non-EU sales, utilisation, scrap and power prices, fixed costs and the grade mix.

A workable investment case

The investment case may include quality, efficiency, existing carbon costs and customer decarbonisation demand—not CBAM alone. Avoid double-counting the same saving as both a full certificate benefit and a separate full price premium.

13 / POLICY & EXECUTION

Separate today’s bill from future policy proposals

Do not blend a current compliance calculation with an unadopted long-term policy path.

Status	Treatment in this report	Commercial response
2026 applicable framework	Product boundaries, adjustments, deductions and quarterly price [1] [3]	Product evidence and price reconciliation
Scheduled next steps	Certificate sales from Feb 2027; first declaration / surrender by 30 Sep [2]	Evidence, liquidity and contract settlement
Scope-expansion negotiations	Council position in June 2026 on downstream products [12]	Separate covered goods from potential future coverage
ETS revision proposal	COM(2026) 616 is a legislative proposal [13]	Test long-term allocation and investment sensitivities

Downstream expansion or a changed allocation path can prompt sourcing redesign. Treating a proposed schedule as enacted law can misstate today’s product cost and investment payback. This report keeps the 2026 calculation separate from longer-term policy risk.

> **Execution priority**
>
> First close the product, volume, emissions and deduction records for 2026 imports. Update longer-term scenarios separately; policy uncertainty is not a reason to defer current obligations and settlement.

14 / OUTLOOK & MONITORING

Lower net cost must translate into retained earnings

Base case | Wider product, process and contract differentiation—not inevitable export collapse.

Scenario	Conditions to observe	Economic result
Base · differentiation	Compliance improves; pass-through varies by product	Net carbon cost and realised prices drive margin differences
Better · value captured	Lower accepted emissions, stable volume and premium / price defence	Stronger payback for abatement and evidence investment
Pressure · larger concessions	Data gaps, adverse defaults, failed deductions and price pressure	Certificate cost combines with evidence, funding and volume costs

Four indicators for the next reporting cycle

Net bill: How much of the emissions adjustment and deduction is accepted?
Realised price: How do the underlying price, concessions and premiums change?
Volume and quality: Do repeat orders and qualifications support cost recovery?
Cash retention: What remains after verification, holdbacks and true-ups?

Final assessment

The question is not just who pays CBAM. Advantage comes from **establishing a lower eligible net carbon cost and retaining that difference through contracts and cash collection**. Lower emissions alongside deteriorating net margins and orders would weaken the thesis; improvement across all three would strengthen it.

These are conditional industry scenarios, not company earnings, market-share or share-price targets, or estimated probabilities.

15 / SOURCE REGISTER

Claims and original evidence 1/2

Teal source numbers, document titles and “OPEN SOURCE” link directly to original documents.

01. EU / EUR-Lex | Regulation (EU) 2023/956 · consolidated text OPEN SOURCE

2025.10.20 · Articles 2a, 6–9, 20–22, 31; Annexes I, II, IV, VII

02. EU / EUR-Lex | Regulation (EU) 2025/2083 OPEN SOURCE

2025.10.08 · Amendment: mass threshold, deadlines, carbon-price deduction

03. European Commission | Implementing Regulation (EU) 2025/2620 OPEN SOURCE

2025.12.16 · Free-allocation adjustment; Annex, equations 1–6, pp. 5–8

04. EU / EUR-Lex | Directive (EU) 2023/959 OPEN SOURCE

2023.05.10 · ETS amendment; Article 10a(1a), CBAM factor

05. European Commission | Price of CBAM certificates OPEN SOURCE

2026 · Quarterly / weekly pricing and purchase schedule

06. Ireland EPA | CBAM Certificates OPEN SOURCE

2026.11.07 · Published Q1–Q3 2026 certificate-price table; current webpage

07. European Commission | CBAM Questions and Answers OPEN SOURCE

2026.05.27 · pp. 24–26: adjustments; pp. 31, 34–35: emissions boundaries

Scope: legislation and official guidance define obligations and calculation boundaries. Company statements do not substitute for verified CBAM product data.

16 / SOURCE REGISTER

Claims and original evidence 2/2

Teal source numbers, document titles and “OPEN SOURCE” link directly to original documents.

08. European Commission | Verification of CBAM emissions OPEN SOURCE

2026.11.07 · Accredited verification of actual emissions; current webpage

09. MOTIR, Republic of Korea | Definitive-period CBAM practical manual OPEN SOURCE

2026.03.30 · Government release; steel precursors and processing examples

10. POSCO | Completion of Gwangyang electric-arc furnace OPEN SOURCE

2026.06.17 · Company release; capacity, investment, emissions boundary and targets

11. Hyundai Steel | Carbon neutrality and HyECOsteel OPEN SOURCE

2026.11.07 · Company website; hybrid process, internal LCA and production plans

12. Council of the EU | Position on extending CBAM scope OPEN SOURCE

2026.06.12 · Council negotiating position; downstream products, not final law

13. European Commission / EUR-Lex | COM(2026) 616 · legislative procedure OPEN SOURCE

2026.07.17 · Proposed ETS revision; procedure 2026/0212/COD

14. Belgian Federal Climate Service | Third quarterly CBAM certificate price OPEN SOURCE

2026.10.05 · Official explanation: Q3 price €82.32 and 2026 factor 0.975

Proposals and negotiating positions are not enacted rules. Webpages dated 7 November use the analysis cut-off, not an inferred publication date. Illustrative parameters and incidence shares are TradeLens assumptions.

17 / METHODOLOGY & USE

Methodology, disclaimer and use

Legislation, official guidance, company statements, analysis and illustrations are distinguished.

Item	Basis
Scope / date	7 Nov 2026. CBAM implications for costs, prices and investment in Korean steel.
Law / sources	Applicable regulations and official guidance; 2026 proposals and company plans are separately identified.
Model inputs	Pages 6–9 and 13: emissions, benchmark, CSCF=1, volume, costs and shares are illustrative. P=€82.32 is the published Q3 2026 price.
Boundaries	Distinguish CBAM direct / precursor boundaries from corporate LCA and Scope 1–2. Other costs, tariffs and freight are separate.
Purpose	Industry economics—not individual customs, tax or legal advice or a product-specific compliance calculation.

Disclaimer

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