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CBAM and sustainable logistics

What does the EU's carbon border mechanism mean for exporters, how does carbon cost reach the freight bill, and how are transport emissions calculated?

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SHORT ANSWER

CBAM puts a price, linked to the EU ETS, on the embedded carbon emissions from producing cement, iron and steel, aluminium, fertilisers, electricity and hydrogen imported into the EU. The transitional period from 1 October 2023 to 31 December 2025 involved reporting only; the definitive period has applied since 1 January 2026. Imports above 50 tonnes a year require the EU importer or indirect customs representative to be an authorised CBAM declarant. Certificate sales start on 1 February 2027, and the first annual declaration, for 2026 imports, is due by 30 September 2027. The declaration is filed by the EU declarant, not the Turkish exporter; the Turkish producer supplies the installation's emissions data.

Two separate carbon calculations

When logistics people talk about "carbon", two different calculations often get mixed up:

- **The product's embedded emissions:** the greenhouse gases released when the goods were produced. The EU's **Carbon Border Adjustment Mechanism (CBAM)** looks at these.
- **The emissions of transport:** the greenhouse gases released in carrying and transhipping the cargo. In shipping, the **EU ETS**, **FuelEU Maritime** and IMO rules concern the carrier; **ISO 14083** and the **GLEC Framework** concern the cargo owner's reporting.

We could not confirm from an official text whether transport emissions count towards CBAM. One software provider says they do not; check the Commission's guidance.

What is CBAM and what does it cover?

CBAM was set up by **Regulation (EU) 2023/956**, published in May 2023. It puts a price on the emissions from producing certain goods imported into the EU, paid through certificates whose price is linked to the EU ETS.

The six sectors covered: cement, iron and steel, aluminium, fertilisers, electricity, hydrogen.

According to Türkiye's Ministry of Trade, indirect emissions also count for cement and fertilisers; for iron and steel and aluminium only direct emissions count.

Two periods:

Period	Dates	What happens
Transitional	1 October 2023 – 31 December 2025	Reporting of embedded emissions only; no financial obligation
Definitive	From 1 January 2026	Obligation to buy and surrender certificates

The 2025 simplification and the 50-tonne threshold

Regulation (EU) 2025/2083 (the "Omnibus") was adopted on **8 October 2025** and entered into force in October 2025. Sources differ on the exact date: EY and PwC give 17 October as the publication date and 20 October as the entry-into-force date, while Türkiye's Ministry of Trade says it entered into force on 17 October.

The most important change is the **annual 50-tonne threshold**:

- An importer's iron and steel, aluminium, fertiliser and cement imports that do not exceed **50 tonnes** in total in a year are exempt from CBAM.
- **It does not apply to electricity or hydrogen.**
- It replaced the old €150 per-consignment value exemption.
- According to secondary sources, if the threshold is exceeded during the year, all of that year's imports fall within the obligation.

In an assessment published on 30 September 2026, the Commission said that for the period 1 April 2025 to 31 March 2026 the threshold exempted only **0.87%** of covered embedded emissions. In other words, the threshold takes small importers out, while almost all emissions stay in scope.

According to secondary sources, the same Regulation removed non-calcined kaolinic clays from scope.

Obligations and timetable in the definitive period

- **Authorised CBAM declarant:** from 1 January 2026 this status is needed to import CBAM goods above the threshold into the EU. The **importer or the indirect customs representative** applies through the authorisation module of the CBAM Registry, in the member state where it is established. According to secondary sources, those who applied by 31 March 2026 could keep importing while awaiting a decision.
- **Certificate sales:** start on **1 February 2027** through the Common Central Platform (CCP).
- **Certificate price:** for 2026 imports, the quarterly average EU ETS price; from 2027, the weekly average.
- **First annual declaration:** for 2026 imports, by **30 September 2027**. In later years the declaration and surrender for the previous year are due by 30 September each year.
- **Quarterly holding: from 2027**, at the end of each quarter, certificates covering **at least 50%** of the embedded emissions of imports since the start of the year must be held. There is no such obligation for 2026 imports.
- **Default values:** if default values are used instead of actual emissions data, a mark-up of 10% applies in 2026, 20% in 2027 and 30% in 2028; for fertilisers the mark-up is 1%.

- **Verification:** if actual values are used, they must be verified by a verifier accredited in the EU. According to Türkiye's Ministry of Trade, legal entities in third countries can also act as verifiers with EU accreditation.
- **Carbon price paid:** a carbon price actually paid in a third country can be deducted, provided it is verified.

Who does what?

Party	Role
EU importer	Obtains authorised declarant status, files the annual declaration, buys and surrenders certificates, meets the 50% quarterly rule. Shares its EORI number with the supplier so it can pull installation data from the Registry.
Indirect customs representative	Can apply for declarant status. If it takes on the declaration for the importer, it is subject to the CBAM obligations and penalties.
Turkish producer (installation operator)	Can register on the CBAM Registry portal for non-EU installations (03CI) and shares installation-level emissions data with the buyer. Does not file a CBAM declaration.
Turkish exporter and forwarder	Not the declarant. Clarify with the buyer what data is needed, in what format and when; ask who handles customs on the EU side and what status that party holds.

What it means for the exporter in practice (our assessment): a buyer whose producer cannot supply verified actual emissions data has to use default values with a mark-up that rises each year. That directly affects the buyer's cost and so the price negotiation.

A check for forwarders: if a partner in the EU handles customs as indirect representative, ask before shipping whether it holds CBAM authorisation. According to secondary sources, customs authorities can stop imports once the threshold is exceeded without authorisation. We could not confirm a separate CBAM role for a direct representative.

Will the scope expand?

On **17 December 2025** the Commission proposed an amendment covering about 180 downstream products: steel- and aluminium-intensive goods such as screws, bolts, wire, pipes, machinery, vehicles and metal furniture. The proposed start date is **1 January 2028**.

This proposal is **not yet law**. According to secondary sources, the Council and Parliament have set their positions, trilogue negotiations began in September 2026, and the first political round on **20 October 2026** ended without a deal. As of November 2026 the scope is still the six sectors and the goods in Annex I to Regulation 2023/956.

Türkiye: the Climate Law and the Turkish ETS

- **Climate Law No. 7552:** adopted on 2 July 2025 and published in Official Gazette No. 32951 of **9 July 2025**. Under the law, the Climate Change Directorate sets up the emissions trading system and EPİAŞ, the energy exchange, operates the market. The law also provides for a possible Turkish border carbon mechanism for Türkiye's own imports, which is separate from the EU CBAM.

- **Türkiye Emissions Trading System Regulation:** published in Official Gazette No. 33353 of **27 August 2026**. It covers installations emitting more than 50,000 tonnes of CO2e a year.
- **Pilot period:** according to a single law firm source, the pilot covers 2026 and 2027, with reporting only in 2026, for electricity generation, cement, iron and steel, aluminium and fertilisers. We could not confirm this from an official source; check the Carbon Market Board decision.
- **Why it matters:** under the EU CBAM, a carbon price actually paid and verified in a third country can be deducted. How a Turkish ETS price will feed into that deduction is something exporters need to watch.

We did not see in the sources we read whether transport or shipping falls within the Turkish ETS.

Carbon in transport: EU ETS, FuelEU and the IMO

EU ETS (shipping)

- **Scope:** cargo and passenger ships of 5,000 GT and above, regardless of flag.
- **Voyage coverage:** voyages within the EU and time at berth in EU ports 100%; voyages into or out of the EU **50%**.
- **Phase-in:** allowances are surrendered for 40% of 2024 emissions, 70% of 2025 emissions and **100% from 2026 emissions onwards**. The surrender deadline is 30 September each year.
- **Gases:** according to secondary sources, methane (CH4) and nitrous oxide (N2O) are covered alongside carbon dioxide from 2026.

FuelEU Maritime

- Applies **from 1 January 2025** to ships above 5,000 GT calling at EU ports, regardless of flag.
- It lowers the greenhouse gas intensity of the energy used on board step by step against a reference value: 2% in 2025, 6% in 2030, 14.5% in 2035, 31% in 2040, 62% in 2045 and **80% in 2050**.
- 100% of the fuel on intra-EU voyages and 50% on voyages into or out of the EU counts; it is measured from fuel production to combustion ("well-to-wake").
- The shore power obligation is limited to container and passenger ships.

CII (Carbon Intensity Indicator)

Mandatory under MARPOL Annex VI since **1 January 2023**. Cargo, RoPax and cruise ships above 5,000 GT on international voyages are rated **A to E** each year. A ship rated D for three consecutive years or E for one year must prepare a corrective action plan.

IMO Net-Zero Framework: not yet adopted

The IMO's 2023 strategy aims for net zero in international shipping "by or around 2050". Status of the **Net-Zero Framework (NZF)** that would turn that goal into binding rules:

- **April 2025, MEPC 83:** the draft was approved and circulated.
- **October 2025, extraordinary session:** the adoption vote was postponed by a year.
- **2026:** talks continued in a working group; as of September 2026 member states were still divided.
- **Next step:** a possible adoption vote on **4 December 2026**. If it is not adopted, the next opportunity is MEPC 86 in October 2027.

As of 9 November 2026 the NZF has not been adopted. Be wary of reports or quote lines that treat it as in force.

Marine fuels: HSFO, VLSFO and alternatives

To read how carbon rules and fuel surcharges affect freight, you need to know what the ship burns. The sulphur limit comes from MARPOL Annex VI. The global limit has been 0.50% since 1 January 2020 (previously 3.50%). In emission control areas it is 0.10%, and the Mediterranean has been one of them since 1 May 2025.

Fuel or method	What it is	Note
HSFO + scrubber	High-sulphur heavy fuel oil with an exhaust gas cleaning system	Since 1 March 2020, a ship without a scrubber may not carry fuel above 0.50% sulphur for use on board. Flag States accept scrubbers as an equivalent means of compliance.
VLSFO	Very low sulphur fuel oil, at or below 0.50% sulphur	According to IMO, most ships now comply with the 2020 limit using this fuel.
LNG and biofuels	Low- or zero-sulphur alternatives	Among the 2020 compliance options IMO lists.
Ammonia	A candidate alternative fuel	IMO approved interim guidelines for the safety of ammonia-fuelled ships (MSC.1/Circ.1687) in December 2024. The main safety issues are high toxicity and the risk of explosive atmospheres.

Because a ship calling at Mediterranean ports must meet the 0.10% limit there, in our view the fuel cost difference may show up in quotations as LSS or BAF. How the choice of fuel affects EU ETS and FuelEU obligations is covered above.

Carbon cost in freight quotes

Carriers pass on their EU ETS cost as an **ETS surcharge** or "Emissions Surcharge". According to a January 2026 industry report, CMA CGM, Maersk, Hapag-Lloyd, ONE, MSC and Swire raised these surcharges with the move to 100% in 2026:

- **Example:** Hapag-Lloyd's **Far East → North Europe** surcharge rose by USD 54 for the quarter to **USD 168 per 40-foot dry container**; USD 113 in the opposite direction (Hellenic Shipping News / ENGINE, 12 January 2026).
- Maersk says it adds FuelEU compliance costs to the same "Emissions Surcharge" line.

These figures are examples only: the amount varies by trade, direction, carrier and quarter, and carriers calculate it in different ways. When comparing quotes, ask for the ETS line separately and check its validity

period. For how to read it alongside other surcharges, see **Freight quotations and surcharges**.

How are transport emissions calculated?

If your customer asks for transport emissions per shipment, two references are used:

- **ISO 14083:2023:** the standard for quantifying and reporting greenhouse gas emissions from freight and passenger transport chains (March 2023).
- **GLEC Framework v3.0 (2023):** the industry framework published by Smart Freight Centre, which integrates ISO 14083 into its method.

The basic formula: for each leg of the transport chain,

> Emissions = transport activity (tonne-km) × the emission intensity of that transport or transhipment type

Example (the tonne-km step only): if a 20-tonne load travels 1,200 km, the transport activity is 20 × 1,200 = **24,000 tonne-km**. That figure is multiplied by the emission intensity measured by the carrier or the default value in GLEC. Any hub in the chain is added separately.

Emissions are calculated "well-to-wheel" ("well-to-wake" at sea): fuel production and supply plus combustion in the vehicle.

Data priority: measured primary data first, then modelled data, and only as a last resort industry-average default values. A calculation based on defaults is weak for showing improvement.

Data you need to prepare as shipper:

- Shipment weight (tonnes): the product and your packaging, excluding carrier equipment such as pallets and containers
- Distance: preferably the shortest feasible distance, or actual distance with a correction factor
- Transport mode and origin and destination
- Hubs, if any

Timeline

Date	Development
01.01.2023	CII ratings become mandatory
May 2023	CBAM Regulation (EU) 2023/956 published
01.10.2023	CBAM transitional period starts (reporting only)
2024	EU ETS shipping: 40% of 2024 emissions
01.01.2025	FuelEU Maritime applies (2% reduction)

Date	Development
April 2025	IMO MEPC 83: Net-Zero Framework draft approved
09.07.2025	Turkish Climate Law No. 7552 published
08.10.2025	CBAM simplification Regulation (EU) 2025/2083 adopted; in force in October 2025
October 2025	IMO NZF adoption vote postponed by a year
31.12.2025	CBAM transitional period ends
01.01.2026	CBAM definitive period; authorised declarant requirement; EU ETS shipping at 100% plus CH4/N2O
27.08.2026	Turkish ETS Regulation published
30.09.2026	Commission: the 50-tonne threshold exempts 0.87% of emissions
20.10.2026	CBAM downstream extension: no deal at first political trilogue
04.12.2026	Possible IMO NZF adoption vote
01.02.2027	CBAM certificate sales start
2027	50% quarterly certificate holding obligation
30.09.2027	First annual CBAM declaration and surrender for 2026 imports
01.01.2028	Proposed start of the downstream extension (not yet law)
2050	FuelEU: 80% reduction in greenhouse gas intensity

Test yourself

1. You export steel from Türkiye to the EU. Who files the CBAM declaration? *(Answer: The authorised CBAM declarant in the EU: the importer or the indirect customs representative. The Turkish producer supplies the emissions data.)*
2. Under the EU ETS, how much of a voyage into the EU from outside is covered? *(Answer: 50%. Half the emissions of voyages into or out of the EU are covered; from 2026 emissions onwards, allowances are surrendered for all of that half.)*
3. A 15-tonne load travels 800 km. What is the transport activity in tonne-km? *(Answer: 15 × 800 = 12,000 tonne-km. For emissions, multiply it by the relevant emission intensity.)*

Frequently asked questions

Does a Turkish exporter have to file a CBAM declaration?

No. The CBAM declaration and surrender of certificates are the job of the authorised CBAM declarant in the EU: the importer or the indirect customs representative. The Turkish producer can register on the CBAM Registry portal for non-EU installations and share verified emissions data with its buyer. Without actual data, the buyer uses default values with a mark-up.

What is the 50-tonne threshold?

An annual threshold introduced by Regulation (EU) 2025/2083: an importer's iron and steel, aluminium, fertiliser and cement imports that do not exceed 50 tonnes in total in a year are exempt from CBAM. It does not apply to electricity or hydrogen. If the threshold is exceeded during the year, all of that year's imports fall within the obligation.

When will CBAM certificates be bought?

Certificate sales start on 1 February 2027 through the Common Central Platform. The first annual declaration and surrender of certificates for 2026 imports are due by 30 September 2027. From 2027, at the end of each quarter, certificates covering at least 50% of the embedded emissions of imports since the start of the year must be held in the account.

What is the ETS surcharge in a freight quote?

The line in which the carrier passes on its EU Emissions Trading System cost; some lines add FuelEU compliance costs to the same line. The amount varies by trade, direction and quarter. For example, according to a January 2026 report, Hapag-Lloyd's Far East–North Europe surcharge was USD 168 per 40-foot dry container.

Is the IMO Net-Zero Framework in force?

No. The draft was approved at MEPC 83 in April 2025, but the adoption vote was postponed by a year at an extraordinary session in October 2025. As of 9 November 2026 the framework has not been adopted; the next possible vote is on 4 December 2026.

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