



Aluminum Market Update Community Chat

Featuring:

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Contact nicholas.bell@crugroup.com for participation information.

RECENT *headlines*

First CBAM Certificate price to be published April 7

Trump administration introduces full-value tariffs on aluminum-containing imports

Middle East aluminum risk by product and company, Part 1: EGA/Alba

Middle East aluminum risk by product and company, Part 2: UAE/Bahrain

Middle East aluminum risk by product and company, Part 3: Oman/Saudi Arabia/Qatar

Industry reacts to Section 232 shift to full-value tariff on derivatives

Kibar Americas acquires idled Novelis Fairmont aluminum sheet and foil plant

EU CBAM: Impact on US Aluminium Businesses

What the Next Few Years Look Like

Presented to Aluminium Market Update
& Steel Market Update

April 2026



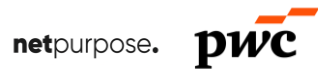
Introductions



Nick Ogilvie

Product and CBAM Specialist

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Reliability & Credibility

Cutting-edge software, powered by human expertise

Our team combines decades of experiences in commodities, emissions accounting, supply chain management, machine learning and data science.



Recent validation in April 2025 for CarbonChain's corporate carbon footprint methodology

In September 2025, CarbonChain received validation of its product carbon footprint methodology.



2,400+ EU CBAM declarations completed

EUR 950+ million penalties avoided

10M+ tonnes of CBAM goods cleared to date

3,500s+ of suppliers enabled across the globe

Extensive carbon accounting knowledge & experience

Core focus on commodity supply chains

3.8+ billion tCO₂e tracked on CarbonChain

13.5M+ Product Carbon Footprints generated

Agenda

- | | | |
|-----------|--|---|
| 01 | What is EU CBAM? | Mechanism, scope, and timeline |
| 02 | How CBAM Costs Work | Certificates, EUA pricing, and the free allocation phase-out |
| 03 | Middle East Conflict & Aluminium Supply | Iran strikes, supply disruption, and structural market shifts |
| 04 | Why US Businesses Should Care | Downstream exposure for aerospace, automotive, and packaging |
| 05 | CBAM Cost Scenarios | Modelling exposure for US aluminium intermediaries |
| 06 | Downstream Scope Extension (2028) | Expanding CBAM to finished products |
| 07 | How CarbonChain Can Help | Platform, services, and getting started |

What is EU CBAM?

A very quick overview of the regulation and how the cost mechanism functions

What is EU CBAM?

The EU's Carbon Border Adjustment Mechanism places a carbon price on imports of carbon-intensive goods. It mirrors the cost EU producers already pay under the Emissions Trading System (EU ETS).



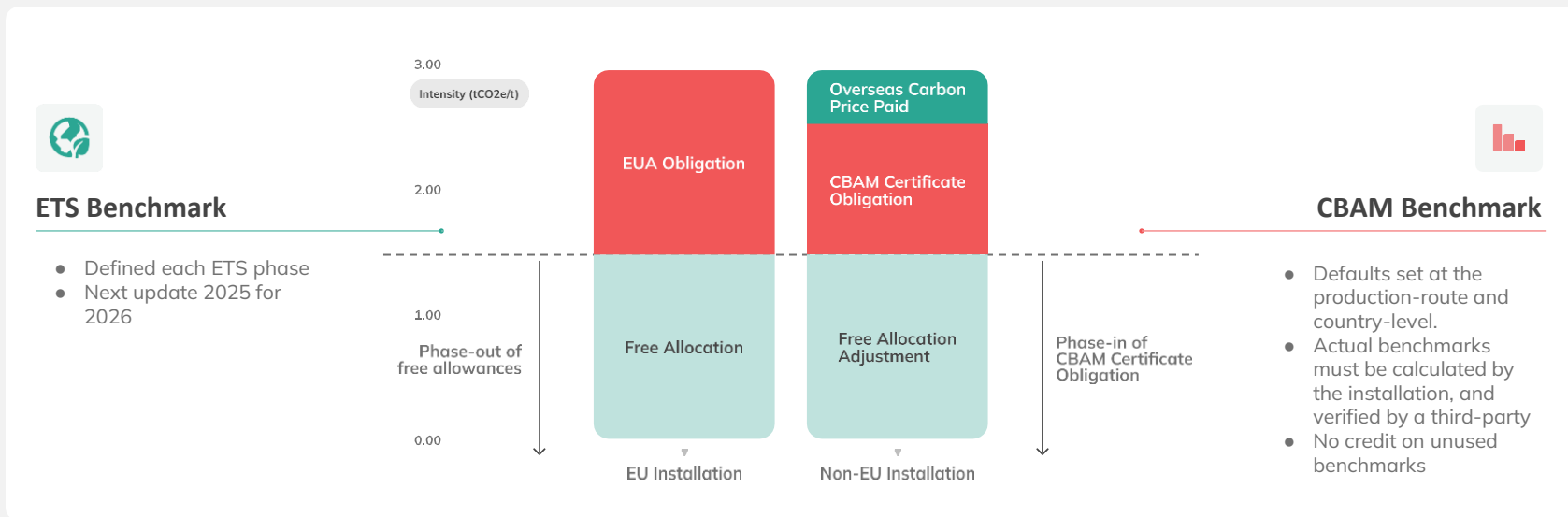
The Goal

Prevent carbon leakage and level the playing field between EU and non-EU producers. Part of the EU's Fit for 55 package.

Covered Goods (Current Scope)

- ✓ Aluminium (primary & downstream)
- ✓ Iron & Steel (primary & downstream)
- ✓ Cement
- ✓ Fertilisers
- ✓ Electricity
- ✓ Hydrogen

Understanding the CBAM cost mechanism



✓ Treating all installations as if they were in the EU under the EU ETS is the “level-playing” field objective of EU CBAM.

✓ Emissions above the benchmark are in full-scope of EU CBAM charges; hence why costs can be significant from the first year.

✓ CBAM benchmark decreases by the phase-in rate % each year, in line with the phase-out of the free allowances under the ETS.



How much is CBAM going to cost?

As an importer of CBAM goods to the EU...

$$\left\{ \begin{array}{l} \text{tCO}_2/\text{t} \\ \text{(Emissions} \\ \text{Factor)} \end{array} \right. - \left\{ \begin{array}{l} \text{CBAM Benchmark} \\ \text{(tCO}_2/\text{t)} \end{array} \right. \times \left\{ \begin{array}{l} \text{Phase-in} \\ \text{(% phase} \\ \text{-in rate)} \end{array} \right\} \times \left\{ \begin{array}{l} \text{€/tCO}_2 \\ \text{(CBAM} \\ \text{price)} \end{array} \right. - \left\{ \begin{array}{l} \text{tCO}_2/\text{t} \\ \text{(Carbon price} \\ \text{paid overseas)} \end{array} \right. = \left\{ \begin{array}{l} \text{€/t} \\ \text{(CBAM cost/} \\ \text{tonne of material)} \end{array} \right.$$

Emissions factor = the supplier's calculated & verified embedded emissions of the CBAM good.

CBAM Benchmark & Phase-in Rate = the free allocation adjustment (benchmark) for the specific product, which decreases annually at the rate of the phase-out of the free allowances under the EU ETS.

Carbon price paid overseas = the carbon price already paid overseas covering a proportion of the emissions intensity of the CBAM goods. This is deducted in order to determine the net CBAM obligation.

CBAM Certificate price = in 2026, the quarterly-average closing price of the EU ETS auctions, shifting to weekly in 2027. This variable is readily "hedgeable" due to the liquid nature of the EU ETS allowances.

CBAM Timeline & Key Milestones

Oct 2023 – Dec 2025

Transitional Phase

Quarterly reporting only.
No financial obligation.
Data collection & learning.

Jan 2026 onwards

Definitive Phase

Annual declarations.
Certificate purchases begin
(from Feb 2027).
Verification mandatory for
installations' actual data.

2026 – 2034

Free Allocation Phase-Out

EU free allowances phased
out starts from 2026.
2.5% CBAM factor in 2026.
Rising to 100% by 2034.

2028 (proposed)

Downstream Scope Extension

~180 steel & aluminium
downstream products
added.
Vehicles, machinery,
packaging.

Key for US businesses: your EU customers will require verified emissions data to avoid punitive defaults.

Middle East Conflict & Aluminium Supply

How the Iran war is reshaping global aluminium markets
and amplifying CBAM's structural impact

Iran Strikes Hit Global Aluminium Supply

March 28, 2026: Iranian missile and drone strikes hit two of the world's largest aluminium smelters



\$3,492/t

LME peak —
4-year high



~8%

Global AI output
at risk from Gulf



800-900kt

Estimated 2026
production loss



Up to 1 year

EGA repair
timeline

Key Developments

- EGA's AI Taweelah smelter (1.6Mt capacity) entered emergency shutdown after significant damage
- Alba in Bahrain had already cut production 19% due to Strait of Hormuz disruption; further damage from March 28 strikes
- Qatalum in Qatar announced controlled shutdown due to natural gas shortages
- Alumina imports into the Gulf plunged in March as Hormuz transit was disrupted
- Macquarie estimates the global aluminium market will enter a full-year deficit in 2026

Sources: S&P Global, CNBC, Al Jazeera, The National, Exiger (March–April 2026)

Structural Impact: Supply Chains Reshaping

Supply Shift Already Underway

- After US/UK banned Russian Al from exchanges (2024), UAE & Bahrain exports surged 26% and 15%
- US sourced 21% of imported primary Al from UAE & Bahrain in 2025 (584kt of 2.79Mt)
- EGA–Century \$4B Oklahoma smelter JV now faces uncertainty with EGA operations impaired
- Gulf disruption + Russian sanctions = two major Western alternative sources constrained simultaneously

Where CBAM Intersects

Higher prices

Al prices up ~10% since conflict. CBAM adds carbon cost on top (however, carbon to value still low).

Source disruption

Buyers forced to diversify may switch to higher-emission sources, raising CBAM costs.

Data gaps

Disrupted producers may be unable to provide actual emissions data, forcing default values.

Accelerated reshoring

Combined pressures make domestic/low-carbon supply more competitive.

Why US Businesses Should Care

Even if you don't export directly to the EU, CBAM affects you through your customers and supply chains.

Aerospace

EU OEMs and Tier 1s importing AI components will require verified emissions data. Suppliers who can't provide it face punitive default values.

Automotive

EU CBAM downstream expansion (2028) will cover vehicles. Automakers already requesting carbon data globally (driven by DPPs and CSRD). AI-intensive EVs amplify this.

Packaging

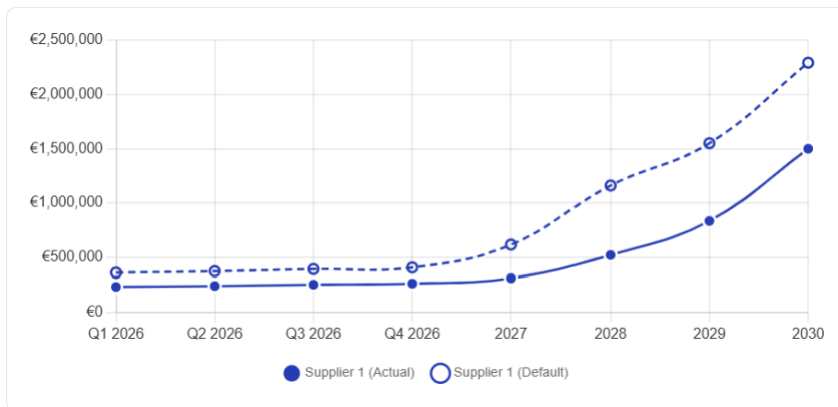
EU packaging imports with AI content face CBAM exposure. Distributors handling AI sheet, foil, and can stock need to understand cost implications.

Intermediaries & distributors: if your customers sell into the EU, they will push CBAM data requirements up or down the supply chain to you.

CBAM Cost Scenarios: US Aluminium

Illustrative cost exposure for a US business selling 10,000t of US primary aluminium into the EU

CBAM Tax (€) Yearly Trend



CBAM Cost per Tonne (€/t)

Year	Supplier 1	Savings vs. Default
Q1 2026	€23.56/t	€12.81/t
Q2 2026	€24.38/t	€13.26/t
Q3 2026	€25.63/t	€13.94/t
Q4 2026	€26.57/t	€14.45/t
2027	€31.33/t	€30.60/t
2028	€52.41/t	€63.75/t
2029	€83.60/t	€71.40/t
2030	€149.91/t	€79.05/t

Key Takeaway

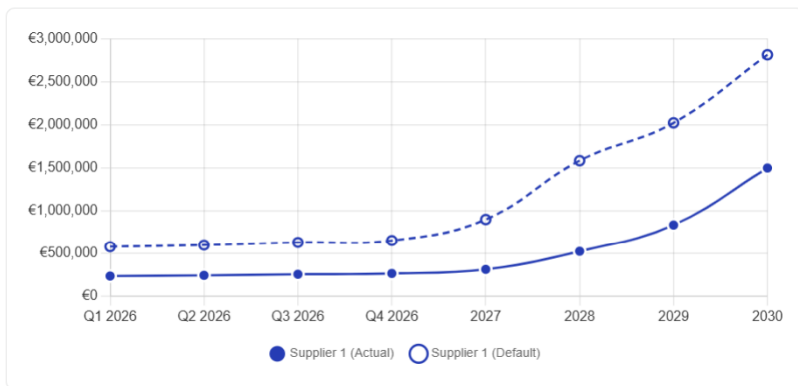
The gap between default and actual verified data grows exponentially as free allocation phases out. By 2030, verified data could save nearly **€800,000 per 10,000t shipment**.

Assumptions: Default: 2.156 tCO₂/t, Actual: 1.700 tCO₂/t; EUA: €75+/t, growing to close to EUR150/tCO₂ by 2030.

CBAM Cost Scenarios: CA Aluminium

Illustrative cost exposure for a US business selling 10,000t of CA primary aluminium into the EU

CBAM Tax (€) Yearly Trend



CBAM Cost per Tonne (€/t)

Year	Supplier 1	Savings vs. Default
Q1 2026	€23.56/t	€34.36/t
Q2 2026	€24.38/t	€35.57/t
Q3 2026	€25.63/t	€37.39/t
Q4 2026	€26.57/t	€38.76/t
2027	€31.33/t	€58.68/t
2028	€52.41/t	€106.00/t
2029	€83.60/t	€118.72/t
2030	€149.91/t	€131.44/t

Key Takeaway

The gap between default and actual verified data grows exponentially as free allocation phases out. By 2030, verified data could save nearly **€1.3M per 10,000t shipment**.

Assumptions: Default: 2.156 tCO₂/t, Actual: 1.700 tCO₂/t; EUA: €75+/t, growing to close to EUR150/tCO₂ by 2030.

US Aluminium: Import-Dependent, CBAM-Exposed

85%

of US aluminium needs
met by imports

21%

of US AI imports from
UAE & Bahrain

\$4B

EGA-Century JV
now uncertain

Implications for US businesses

- ✓ US intermediaries source from the same producers EU importers now report on under CBAM
- ✓ EU buyers will increasingly favour suppliers who can demonstrate low-carbon credentials
- ✓ US businesses re-exporting AI products to the EU face direct CBAM exposure from 2028
- ✓ Early movers who establish carbon accounting infrastructure gain competitive advantage

2028: CBAM Expands to Downstream Products

In December 2025, the EU Commission proposed extending CBAM to ~180 steel- and aluminium-intensive downstream products from January 2028.



Industrial Components

Heavy machinery parts, industrial equipment, structural components



Vehicles & Transport

Vehicles, vehicle parts, electrical equipment, aerospace components



Household & Packaging

Certain household goods, packaging with high Al/steel content

What this means for US businesses

Downstream extension means CBAM will apply to finished aluminium products, not just primary metal. US businesses producing automotive parts, aerospace components, packaging materials, or industrial equipment for EU export will need to track embedded carbon from upstream Al and steel inputs. Distributors will face data requests from EU customers.

From Problem to Solution

How CarbonChain bridges the gap for
US businesses navigating CBAM compliance

Supporting US Businesses with CBAM



CBAM Cost Intelligence

Understand your exposure with detailed cost modelling per product, supplier, and scenario.



Supplier Data Collection

Request, track, and receive installation-level emissions data through our automated platform.



Verification Readiness

SGS-validated methodologies. Audit-ready outputs that pass third-party verification for installations.



Carbon Accounting (PCF & CCF)

Product and Corporate Carbon Footprints using actual data. Turn compliance into advantage.



Downstream CBAM Preparation

Get ahead of 2028 scope expansion. Map product exposure and prepare data infrastructure.



Ratings & Benchmarking

See how your products compare to peers. Prove low-carbon credentials to win EU business.

Get Started for Free

Three steps to understand and manage your CBAM exposure

1

Map Your Exposure

Identify which products are CBAM-covered or will be under the 2028 downstream extension. Quantify EU revenue at risk.

2

Establish Data Infrastructure

Collect installation-level emissions data from suppliers or your sites. Replace default values with actual data to reduce cost exposure.

3

Partner with CarbonChain

Use CarbonChain Connect to automate data collection, generate verified declarations, and benchmark products against peers.



www.carbonchain.com



**Carbon
Chain**

THANKS *for listening*

We're glad you joined!

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