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“The EU CBAM’s real impact on India”

Report launch webinar

Adrien Assous – Sandbag

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CBAM: Reactions to the CBAM

India's reaction

- Finance minister Nirmala Sitharaman: "Arbitrary trade barrier", "unilateral", "one of those steps which can hurt countries like India" (Oct 2024)
- Commerce Minister Piyush Goyal: "violates the principle of common but differentiated responsibilities" (Nov 2024)

Research

- World Bank's CBAM Trade Exposure Index: India ranks number 2
- Academic studies showing annual cost between 190 million and 2.9 billion euros
- Different assumptions
- Most use trade models

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Sandbag's assessment: "Business as usual" scenario

A steel issue

India's exports of CBAM goods under the current scope:

	Flat steel	Long steel	Other I&S**	Aluminium	Cement	Combined metal
Qty current scope (mt)	2.60	0.83	0.57	0.25	0.08	-
Qty for extension (mt)*	0.22	0.07	-	0.04	-	0.11

*Extension to 180 new products, as proposed by the European Commission in December 2025

**Includes pig iron (0.12 mt), ferro-alloys (0.17 mt), iron and non-alloy steel in ingots or other primary forms (0.28 mt)

Scope adjustments

The CBAM scope excludes:

- Indirect emissions (from electricity use)
- lime, coke, some ferro-alloys (for steel); alumina, anodes (for aluminium)
- exported blast furnace gases (partly)

Process Route	Ministry of Steel (Scope 1 and scope 2)	CBAM scope (Sandbag)
BF-BOF	2.20-2.60	2.20
100% scrap-based steel making through the EAF route	0.55-0.65	0.07[26]
Natural Gas-based DRI-EAF route	1.4-1.6	0.7[27] (0% scrap)
Coal-based DRI – EIF route	2.70-3.00	2.34
SynGas (Coal Gasification) based DRI-EAF route	2.50-2.90	2.28

[26] JRC (2022), Greenhouse gas intensities of the EU steel industry and its trading partners

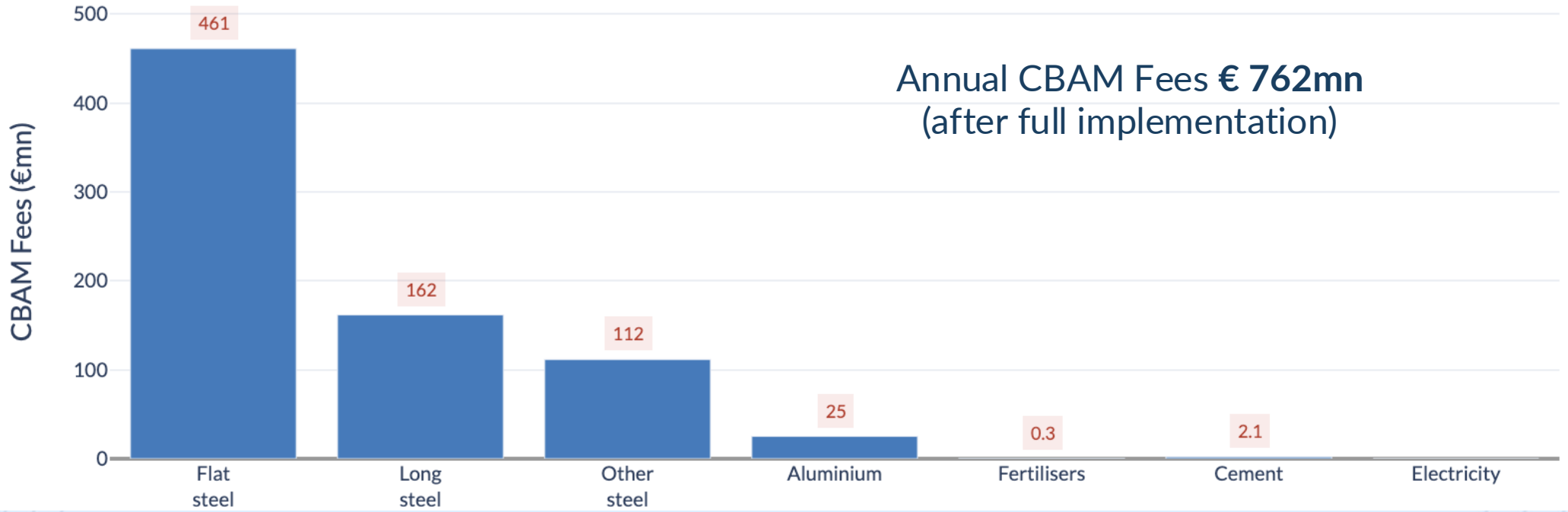
[27] Based on JRC (2023), Greenhouse gas emission intensities of the steel, fertilisers, aluminium and cement industries in the EU and its main trading partners, using the US DRI value (0.63 tCO_2/t) combined with the Indian EAF emissions value.

CBAM fees estimation

using average emission intensity values

CBAM Fees

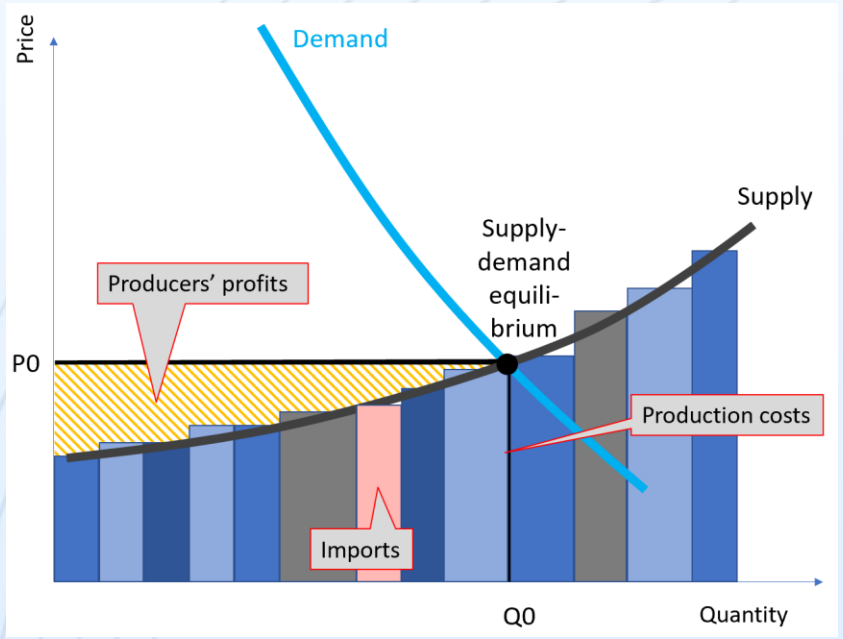
CBAM fees represent the charges applied to products imported from each country under each scenario. These figures are based on 2025 trade volumes, not future projections.



Annual CBAM Fees **€ 762mn**
(after full implementation)

CBAM fees vs. Net cost

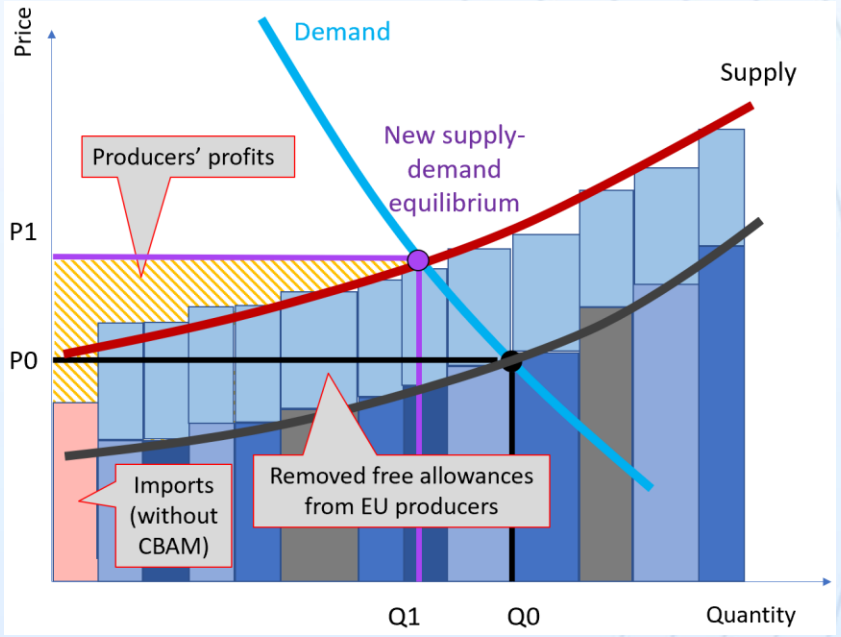
Net cost = CBAM fees – revenues from price increase in EU markets



With free allocation

...and without

Price increase



CBAM fees vs. Net costs

- **Increased EU selling price** = increased carbon costs for EU producers
  x
  pass-through rate*

- Example: 1 tonne of flat steel (CN 7208)

- EU emissions (CBAM scope) = 1.37 tCO2 per tonne of steel
- Carbon costs for EU producers, as free allocation is removed = 1.37 x €80 = €110 per tonne of steel
- **Increased EU market price** = €110 x 80% = **€88 per tonne of steel**

- **CBAM fees (avg India) = €177**

- **Net CBAM cost** = CBAM fees – Increased EU market price = **€89 per tonne of steel**
  €177 €88

*assumed 80%:

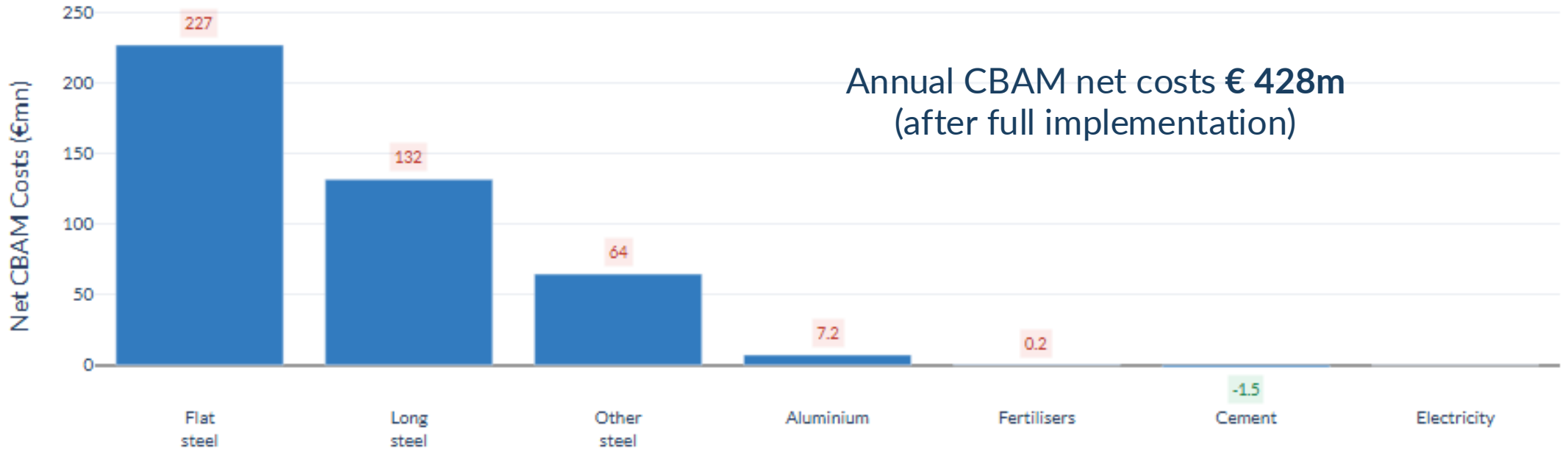
- "under full carbon price internalization, pass-through rates should typically be close to 100%." (Karsten Neuhoff and Robert A. Ritz, October 2019)
- "at least 84 %, with a central range of 98 %–104 % for different load periods" for electricity (CESifo, September 2014)
- 89% for cement (Miller, Osborne and Sheu, 2017)

CBAM net costs

using average emission intensity values

Net CBAM Costs

Net CBAM costs are derived by subtracting revenues from the price effect—due to higher selling prices in the EU market—from the fees.



Annual CBAM net costs **€ 428m**
(after full implementation)

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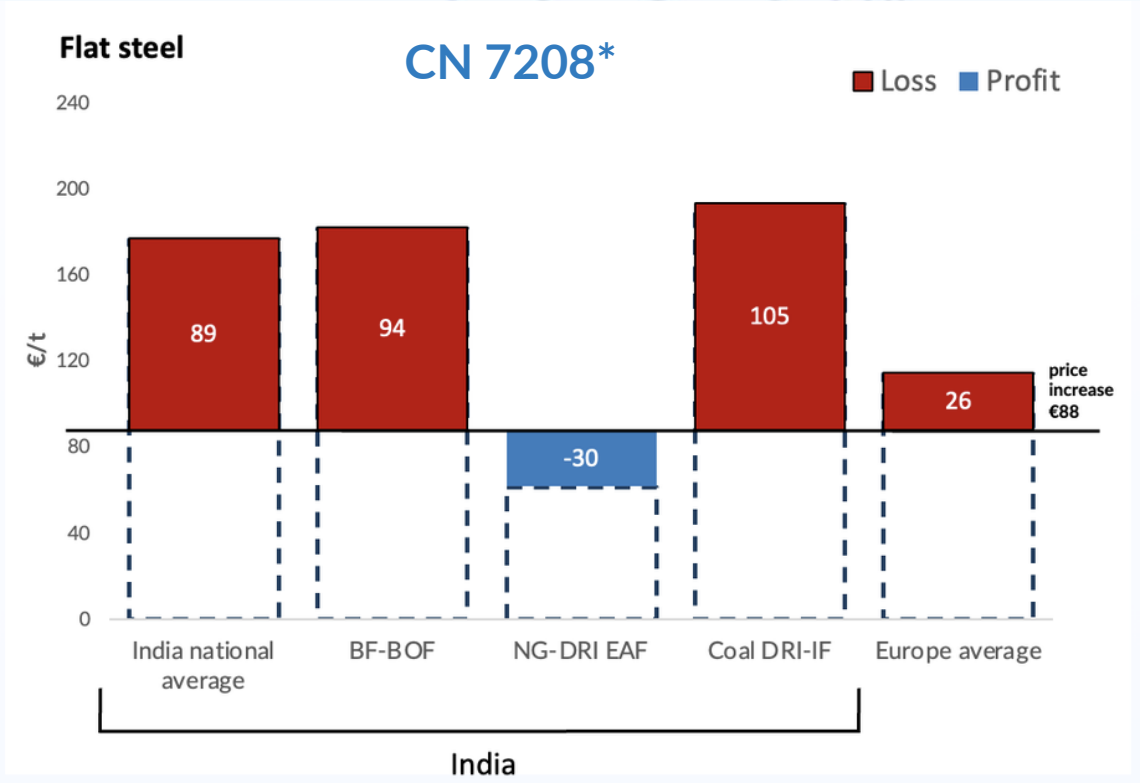
“Expected” scenario

Some “low-carbon” steel exists

Emission intensity for “pure” production routes (1 tonne of product)



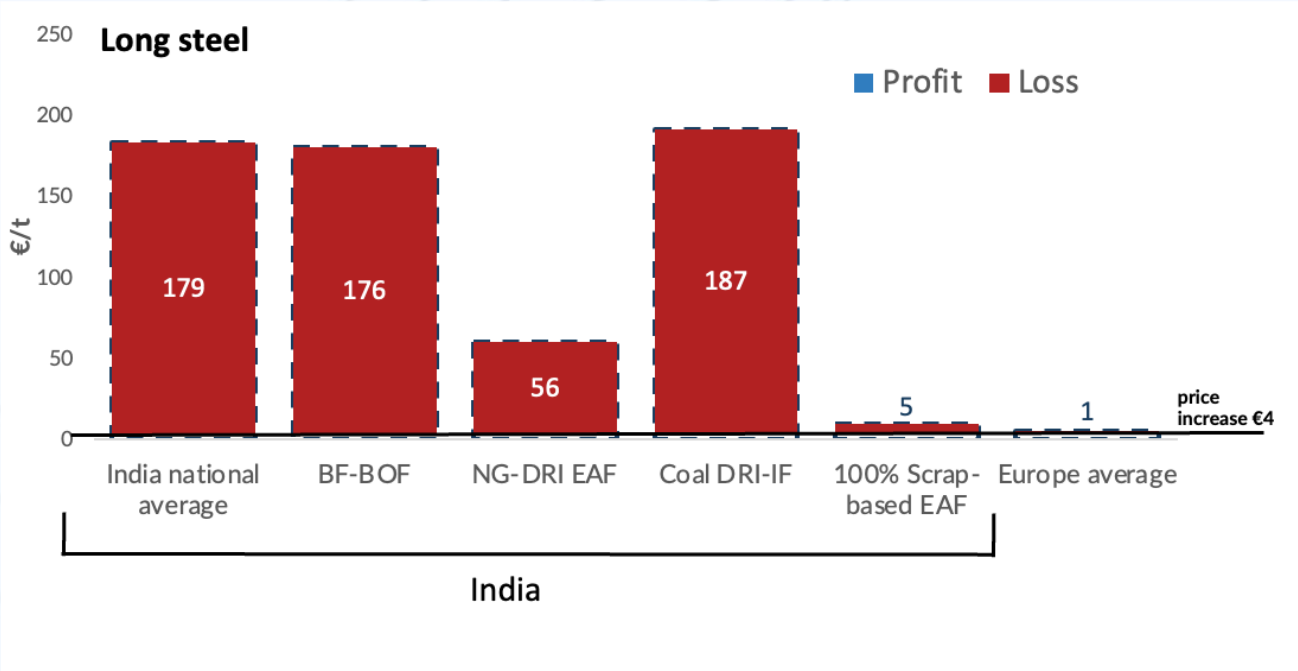
Flat-rolled products of iron or non-alloy steel, of a width >= 600 mm, hot-rolled, not clad, plated or coated.

- Steel made from natural gas-based DRI is favoured by the CBAM
- Can Indian manufacturers choose to export only goods made using this process to the EU?

Some “low-carbon” steel exists

Emission intensity for “pure” production routes (1 tonne of product)

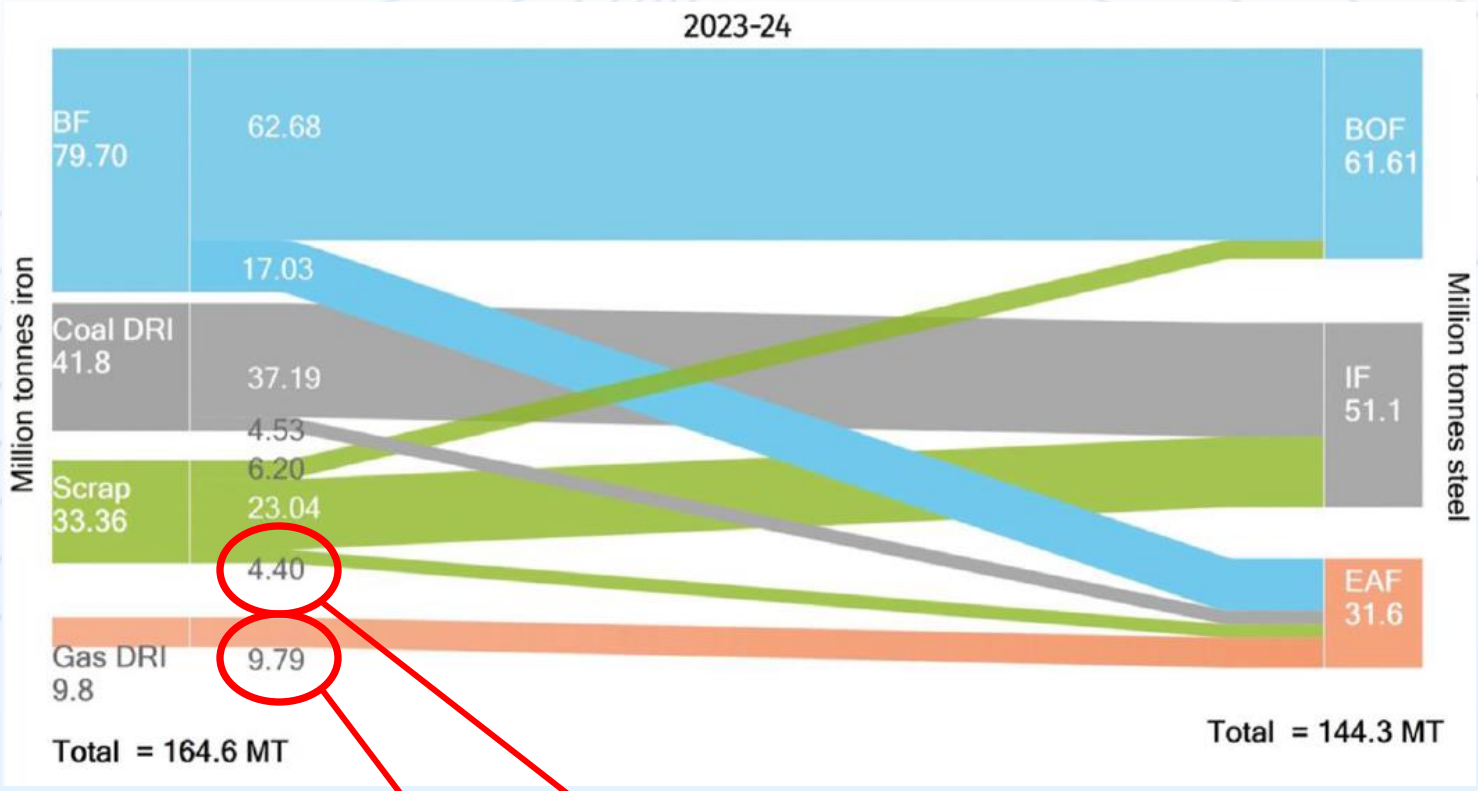
CN 72071111*



- 100% scrap-based EAF faces minimal costs
- Can Indian manufacturers choose to export only goods made using this process to the EU?

*Semi-finished products, of non-alloy free-cutting steel, containing by weight < 0,25% carbon, of square or rectangular cross-section, the width < twice the thickness, rolled or obtained by continuous casting

Quantity of low-carbon steel produced



Exports to the EU	Flat steel	Long steel	Other I&S	Mixed	Total
Qty current scope (mt)	2.60	0.83	0.57	-	4.00
Qty for extension (mt)	0.23	0.07	-	0.11	0.41

?

Embedded emissions methodology

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NG DRI Capacity = 12.3 million tonnes per year, but not “pure”:

- JSPL Angul (1.8 Mtpa DRI): uses syngas derived from coal gasification
- AM/NS Hazira (6.8 Mtpa DRI capacity): also has 3.4 Mtpa blast furnace capacity
- JSW Dolvi (1.6 Mtpa DRI capacity): has more blast furnace capacity

New CBAM methodology (anti-circumvention rule)

- An installation producing the same goods through different routes must declare the weighted average emission intensity of all routes (recital 7 of IR 2025/2547)
- We estimate that AM/NS Hazira (steel capacity **8.6 Mtpa**) can produce with declared emission intensity of **1.10 tCO2** per tonne of steel

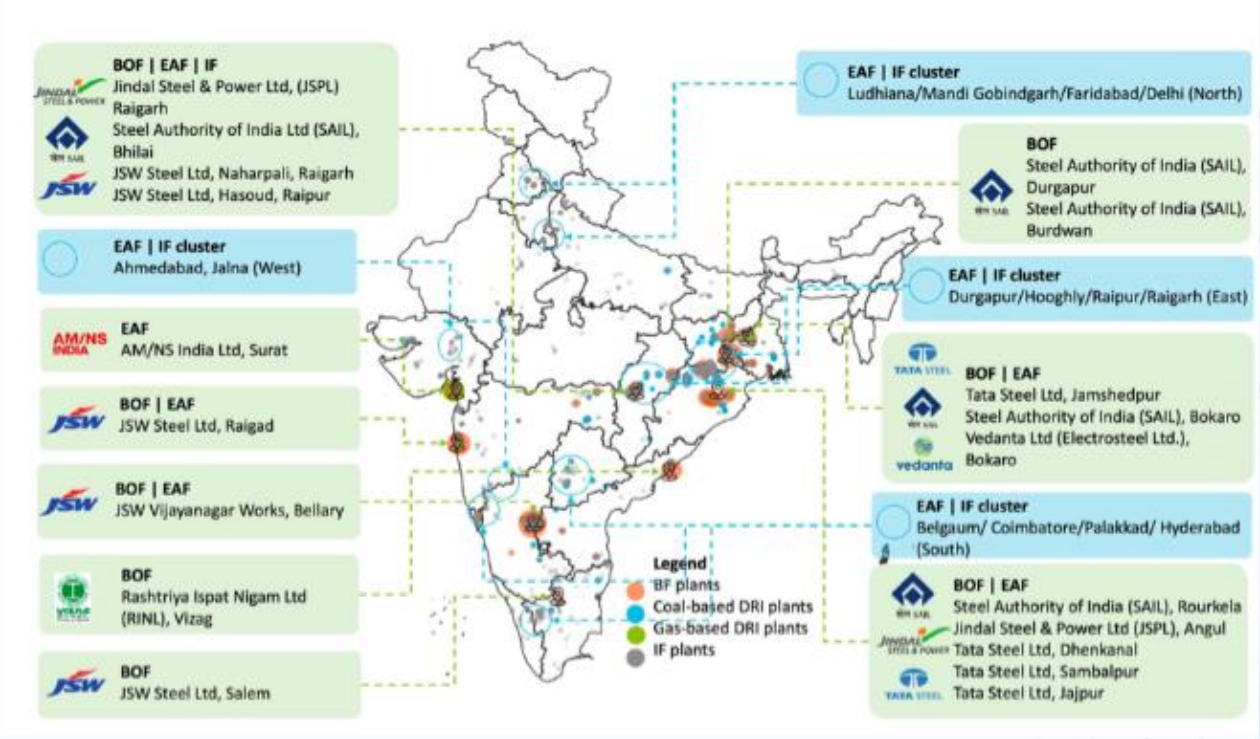
Long steel made from scrap: limited capacity

- Only TataSteel Ludhiana (0.75 Mtpa) produces from 100% scrap
- The scope extension to pre-consumer scrap might complicate reporting and operations

Other considerations

Geographical location

- JSPL Angul is in Odisha (major port)
- AM/NS Hazira is in the Hazira port complex and within Gujarat's western export corridor
- JSW Dolvi has direct access to the Mumbai–JNPT maritime cluster
- TataSteel Ludhiana is landlocked but benefits from the Eastern Dedicated Freight Corridor



MRV capacity

- All 4 plants are large-scale installations with the organisational and financial capacity to implement robust MRV systems.

“Expected” scenario

- Flat products (HRC): emission intensity of 1.10 tCO2 per tonne of steel
- Long products: 0.75m tonnes are supplied with 100% scrap; the remainder with BF-BOF
- Pig iron imports are replaced by DRI from AM/NS Hazira

Impact – “expected” scenario

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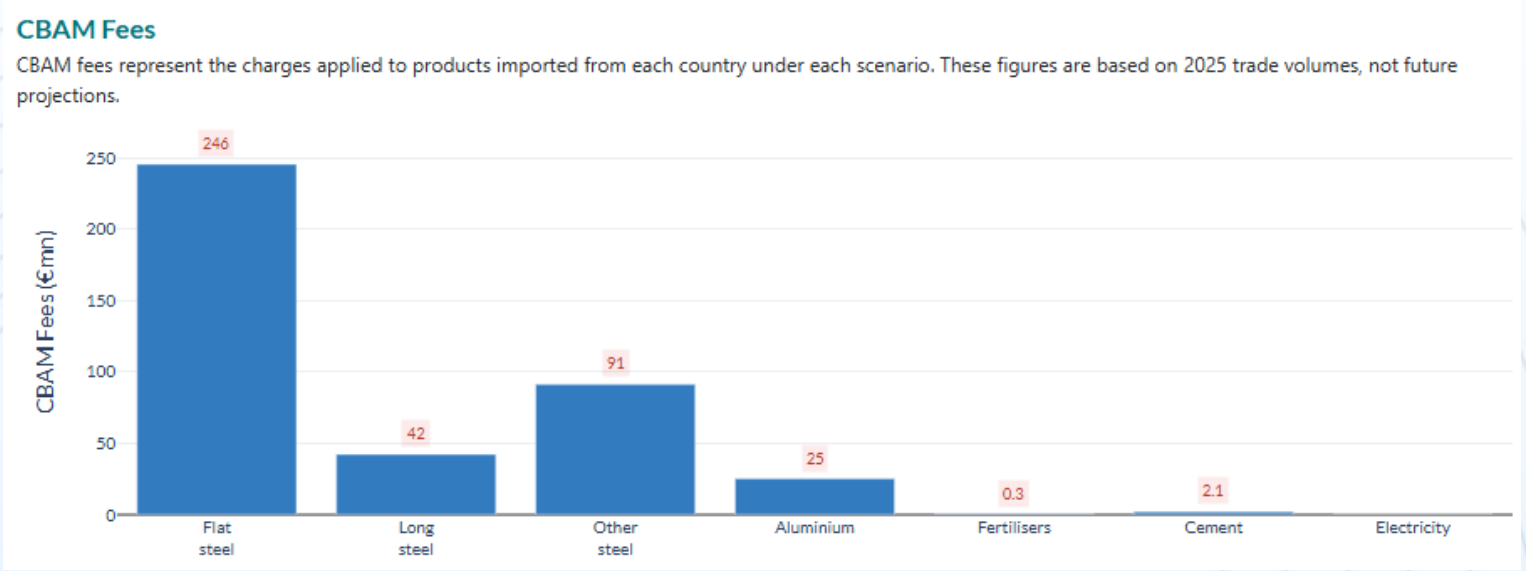
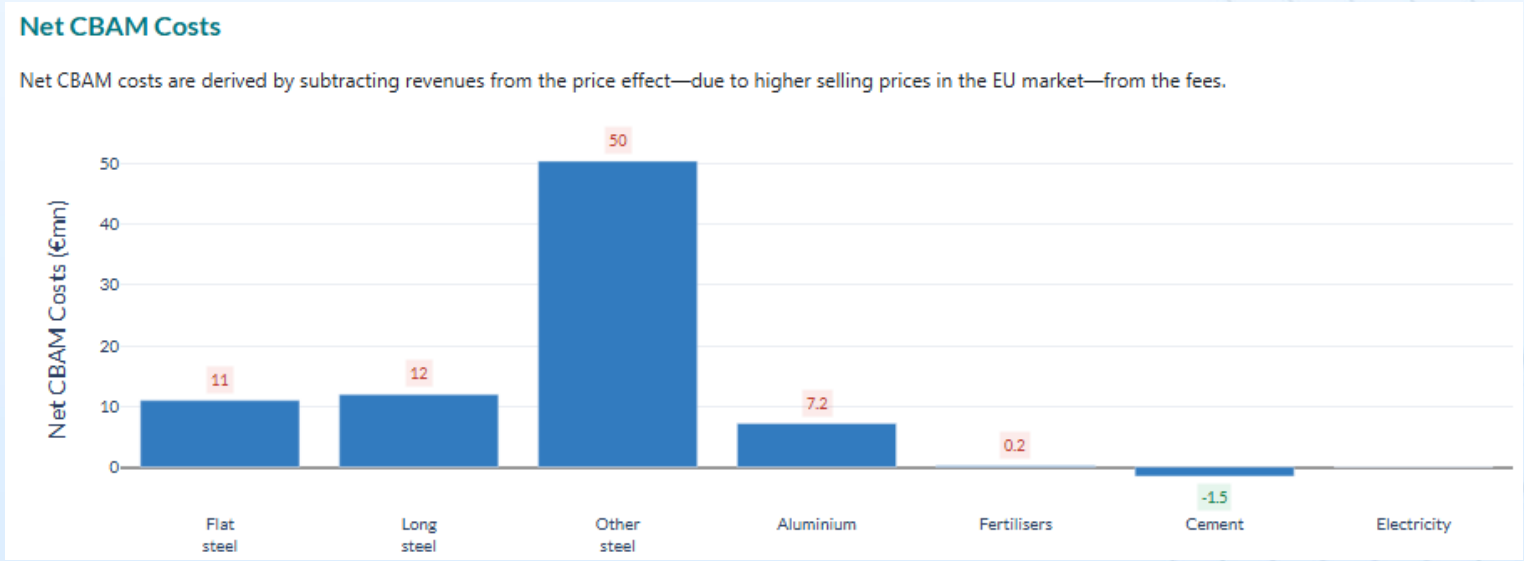
CBAM Fees: €407 million

CBAM net cost : €79 million





“Ambitious” scenario

“Ambitious” scenario

Steel

Flat steel exports:
- no longer use pig iron
- scrap share increases to 10%

Long products reduced from 0.83m to 0.75m tonnes

The shortfall is replaced by Flat steel exports

Fertilisers

Ammonia made from electrolytic hydrogen (AM Green’s Kakinada initiative)

Ambitious scenario

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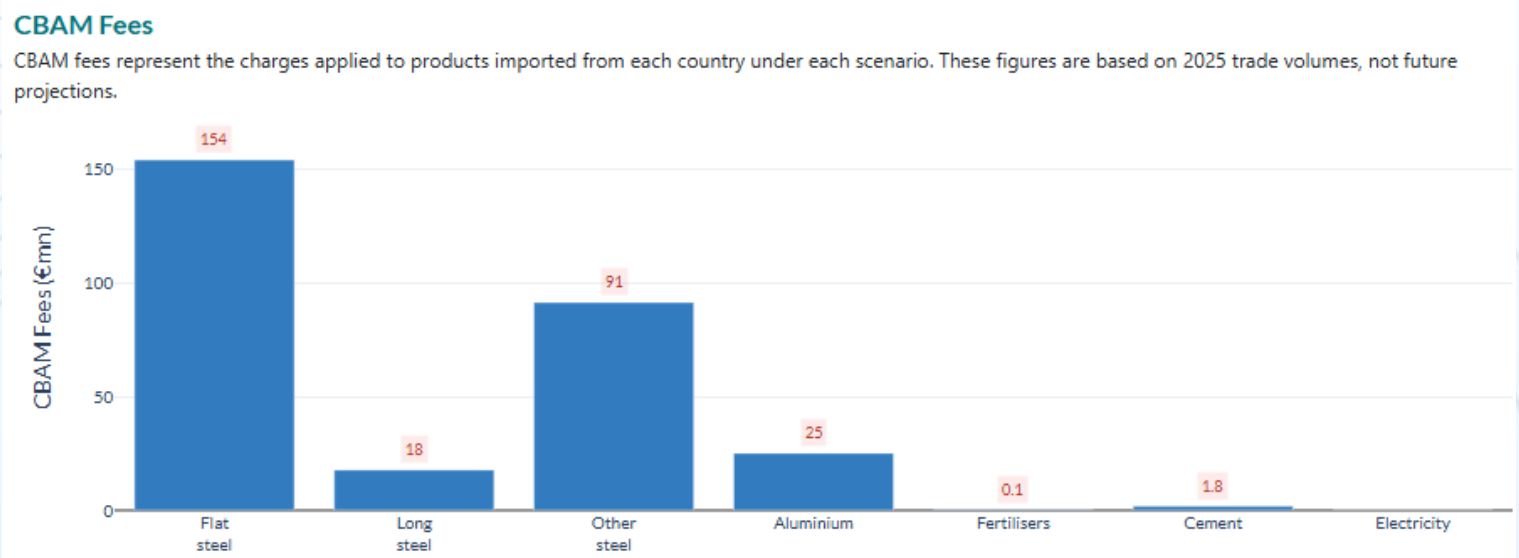
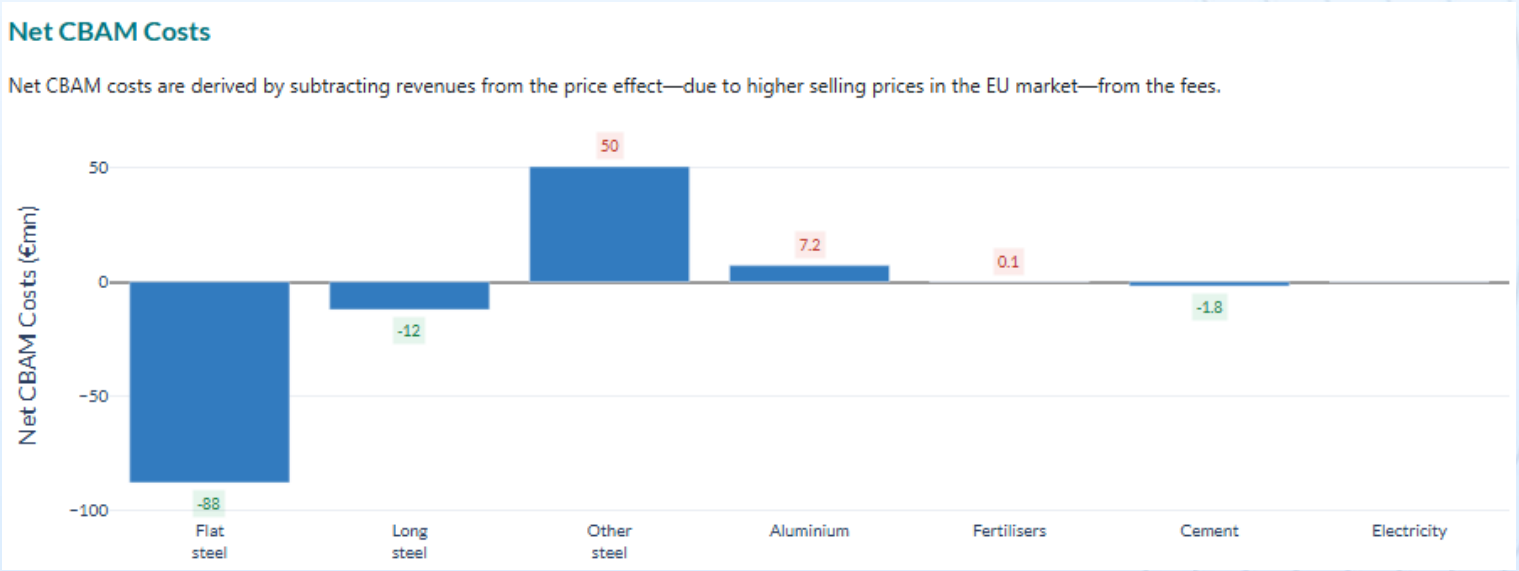
CBAM Fees: €290 million

CBAM net cost : €-44 million





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Many more metrics and design options…