THE EUROPEAN STEEL PROCESSORS ASSOCIATION
THE IMPORTANCE OF ENSURING RELIABLE AND FAIR CBAM BENCHMARKS

In accordance with Article 6 of the CBAM Regulation, the total CBAM cost is determined by the embedded emissions of the imported goods, reduced to reflect any carbon price effectively paid in the country of origin. This amount shall be further adjusted to mirror the level of free allocation under the EU ETS. The methodology for this adjustment should be consistent with EU ETS rules and integrate the relevant process benchmarks to form a single corresponding value for the goods concerned.

While being relatively simple for some CBAM sectors, combining benchmarks to calculate the free allowances adjustment level **may represent quite a complex exercise for the steel industry**. Specific concerns are related to the calculation of the **CBAM benchmark for DRI-based EAF production** that represents a strategic source of decarbonisation for the steel sector in Europe.

1. CBAM BENCHMARK FORMULA

Following the logic of the EU ETS, **the CBAM benchmark for steel** should not only account for all input materials (precursors) but also consider the production route used for the manufacturing of steel products. Moreover, to provide fair treatment, it should be differentiated based on the actual charge mix of the production concerned. Finally, it must be fully aligned with, and mirror 100%, the ETS product benchmarks applied for the allocation of free allowances for the respective period (2026 and onwards). This is a direct requirement under Regulation (EU) 2023/956, in particular Articles 9, 10 and 31, which establish the legal link between ETS benchmarks, free allocation, and CBAM certificates. Any deviation from this principle would not only undermine consistency and environmental integrity, but would also be in breach of the Regulation itself.

CBAM BENCHMARK FORMULA FOR BOF PRODUCTION ROUTE:

$$BM_{CBAM}\ (BOF) = ((T\ sinter + T\ pellets) \times BM_{ETS}\ Agglomerated\ Iron\ Ore) + (T\ pig\ iron \times BM_{ETS}\ Hot\ Metal))$$

Where:

T sinter, T pellets, T pig iron – the amount of respective precursors used for the production of 1 t of crude steel

BM_{ETS} Agglomerated Iron Ore, BM_{ETS} Hot Metal – respective EU ETS benchmarks

CBAM BENCHMARK FORMULA FOR SCRAP-BASED EAF PRODUCTION ROUTE:

$$BM_{CBAM}\ (Scrap\text{-}based\ EAF) = BM_{ETS}\ EAF$$

Where:

BM_{ETS} EAF – respective EU ETS benchmarks

CBAM BENCHMARK FORMULA FOR DRI-BASED EAF PRODUCTION ROUTE:

BM_{CBAM} (DRI-based EAF) = (% DRI × BM_{ETS}Hot Metal) + (% Scrap × BM_{ETS} EAF)

Where:

% DRI, scrap – share of respective precursors used for the production of 1 t of crude steel

BM_{ETS} Hot Metal, BM_{ETS}EAF – respective EU ETS benchmarks

2. IMPORTANCE OF COMBINING EAF AND HOT METAL BENCHMARKS FOR DRI-BASED PRODUCTION

Due to the logic of the steel industry, not all steel products can be manufactured from scrap and thus, fair treatment of the low-CO2 DRI-based steel production becomes critical. The above proposed formula ensures the alignment with EU ETS rules and enhances the environmental integrity of CBAM as it protects the DRI producers from unequal treatment[1].

Specifically, these formulas must be understood as a direct mirroring of the ETS product benchmarks, as required by Articles 9, 10 and 31 of Regulation (EU) 2023/956. Their role is not to "recalculate" but to ensure consistency between CBAM and ETS. In particular, applying the Hot Metal benchmark to the DRI share and the EAF benchmark to the scrap share guarantees that route-specific CBAM benchmarks fully reflect ETS logic.

It is important to stress that DRI is not an "advantage" for imports, but a strategic raw material for the decarbonisation of the steel sector. In the absence of route-specific formulas, DRI-based steel would be unfairly assimilated to scrap-based EAF and penalised, while BOF producers would continue to enjoy higher benchmarks. This would distort incentives away from low-carbon investments and DRI investments as oppose to BF-BOF investments.

In short, the route-specific approach is not a concession to any production technology, but the only way to guarantee that CBAM remains an environmental measure, rewarding real decarbonisation efforts and discouraging protectionist distortions.

Illustrative example: If CBAM ignored the production route, DRI-based producers would be assimilated to pure scrap-EAF and lose the recognition of their genuine abatement efforts. If that happens, the DRI-based producers will be exposed to the payment above the one of the more CO2-intensive BOF producers. This demonstrates that only route-specific benchmarks, fully aligned with ETS logic, can ensure fairness, support enviromental integrity of CBAM, avoid discrimination of DRI-based steelmaking, and support DRI as a strategic raw material in view of the future scarcity of high-quality scrap[2].

[1] At present, there is only one relevant EU ETS benchmark for DRI – the Hot Metal benchmark – and CBAM should apply the same logic. However, since DRI emissions vary significantly by production route (from >1 tCO_2/t for gas-based DRI to 0.1–0.2 tCO_2/t for green hydrogen DRI), once the EU ETS introduces differentiated benchmarks, CBAM must mirror this approach to ensure consistency, fair treatment of low-carbon producers, and preservation of decarbonisation incentives.

[2] For instance, if a DRI-based EAF plant operates with 50% DRI and 50% scrap, its actual emissions are around 0.4-0.5 tCO_2/t. Under a route-specific approach , this would be correctly recognised with the CBAM benchmark at the level of about 0.8-0.9 tCO_2/t, while under a simplified two-benchmark system (BOF vs. scrap-EAF only) the producer would be assimilated to pure scrap-EAF, with a fixed benchmark of 0.15-0.25 tCO_2/t (the EAF benchmark expected for 2026-2030). This distortion would expose the DRI producer to a CBAM obligation comparable to or even higher than a BOF producer, cancelling the benefit of its lower-carbon performance.

3. Availability of the Data for Calculating Individual Production Route-Based CBAM Benchmarks

While it may seem complex, the idea of using the actual input material ratio can, in fact, be implemented relatively easily. While the details of the charge mix are not yet required in the official CBAM declaration, these details can be found in the CBAM Communication Template developed by the Commission and used by 3rd country producers for calculating emissions under the CBAM methodology[3].

This demonstrates that the technical implementation is feasible with existing tools. What is required is not new reporting obligations, but a consistent use of already available data. This also ensures WTO-compatibility, since foreign producers would be asked to provide the same type of information as EU producers under ETS MRV rules.

Alternatively, we recommend that the Commission obtain data on the percentage share of DRI and other relevant steelmaking precursors (such as sinter, pellets, and pig iron) via the CBAM portal. Under the current sector-specific requirements, the Commission already collects detailed information on the chemical composition of steel (i.e., percentages of various alloying elements), which is far less relevant for calculating the carbon cost. Replacing these data points with information on the key precursors used - together with details on the production route - would equip the Commission with all the inputs necessary to establish accurate, route-specific CBAM benchmarks.

Any importer interested in receiving individual adjustment should have no problem sharing the route-specific details.

4. Benefits of Applying Actual Charge Mix Details in the CBAM Benchmark Formula

Using real, route-specific input data for constructing the CBAM benchmarks will ensure:

- **Fairness:** Both EU and non-EU procedures will be exposed to comparable CO2 cost. On top of that, the importers will not be penalized for using low-emission technologies (e.g., DRI-based EAF inside and outside the EU will be treated equally, DRI-based plants will not be exposed to a CO2 cost comparable with that of the BOF producers having higher CO2 levels).
- **WTO Compatibility:** CBAM will remain a genuine environmental measure. With growing scrutiny of carbon pricing tools, a benchmark system based on real inputs is defensible and legitimate.
- **Low risk of CBAM cost circumvention:** Having a “fixed” input material ratio for BOF-based production could allow the importers to replace part of the CO2-intensive inputs with scrap and, thereby, artificially reduce the CBAM cost. ESPA therefore reaffirms that the principle of verified actual values must remain central to CBAM implementation, as the best safeguard against circumvention and unfair competition.

[3] Specifically, these details can be found on Sheets D_Processes and C_PurchPrec of the Template, where, by dividing the amount of EU ETS covered precursor over a reported CBAM good, the actual input material ratio can be calculated.