TO: Ms Ursula von der Leyen, Ms. Teresa Ribera, Commissioner for Clean, Just and Competitive Transition**;** Mr. Stéphane Séjourné, Commissioner for Prosperity and Industrial Strategy**;** Mr. Wopke Hoekstra, Commissioner for Climate, Net Zero and Clean Growth; Ms. Jessika Roswall, Commissioner for Environment, Water Resilience and a Competitive Circular Economy

CC: Ms Ilze Juhansone, Secretary General; Mr Kurt Vandenberghe, Director General for DG CLIMA; Mr Patrick Child, Director General for DG ENVIRONMENT; Ms Kerstin Jorna, Director General for DG GROW; Vesa Terävä (SG D 2); Heiko KUNST, Head of Unit - ETS (II): Implementation, Policy Support & ETS Registry (CLIMA.B.2); Emmanuelle Maire, Head of Unit, Circular Economy, Sustainable Production & Consumption (ENV.B.1); Joan Canton, Head of Unit - Raw Materials, Energy Intensive Industries (GROW.I.1)

Subject: Urgent need for fair revision of ETS benchmarks and to introduce an alumina benchmark to ensure the aluminium industry's competitiveness and decarbonisation potential

8 July 2025, Brussels

Dear President of the European Commission,
Executive Vice-Presidents,
Commissioners,
Director Generals,

On behalf of European Aluminium, representing over 100 members across the aluminium value chain, I write to express our concern about the lack of a dedicated ETS product benchmark for alumina refining in the upcoming 2026–2030 ETS benchmarks review.

The EU has lost around 1 million tons of alumina since 2020, because of the energy crisis and higher energy costs EU producers face in Europe. This trend will continue and make the Union more dependent on imports if immediate action is not taken to protect this crucial first upstream segment of the European aluminium value chain[1][2]. **Without Alumina and affordable baseload electricity, we cannot produce aluminium in the EU. In the EU27 we have only 5 alumina plants left (some only operating partially), supplying the production from electrolysis of around 2 million tons of Primary Aluminium.**

Alumina is listed as a Critical and Strategic Raw Material (CRM) under the Critical Raw Materials Act (CRMA) and alumina refining is the only process through which gallium - another CRM - can be extracted. If these alumina operations were to cease, Europe would not only lose domestic alumina supply but also its only source of gallium, undermining broader strategic autonomy objectives[3]

[1] See Reuters article « Romanian alumina producer to halt production, lay off 500 staff », July 2022
[2] See an overview of the European Aluminium value chain here: https://european-aluminium.eu/about-aluminium/aluminium-industry/
[3] Additionally, aluminium also features on NATO's list of raw materials that are critical for defence applications, along with gallium.

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We welcome the European Commission's efforts—such as the Clean Industrial Deal, the Critical Raw Materials Act, and the Steel and Metals Action Plan—to promote strategic autonomy and decarbonisation. **However, without a benchmark for alumina – that is the needed precursor raw material to produce primary aluminium – these goals will be fatally undermined. Relying on generic fall-back benchmarks exposes alumina refining to disproportionate carbon costs, impairs global competitiveness, and accelerates carbon leakage risk[4].**

Under Article 30 of the CBAM Regulation (EU) 2023/956 the Commission is tasked with monitoring carbon leakage risks. Article 10a of the Revised ETS Directive clearly mandates the Commission to "*Review the determined Union-wide ex-ante benchmarks in relation to their application in the period from 2026 to 2030*", also taking into account "*the level playing field of installations using existing technologies*".

Furthermore, Alumina is now specifically referenced in Annex I among the activities covered by the Directive together with Primary Aluminium. This means that the case for a separate benchmark for Alumina can and should be made[5]. Yet, these factors were not reflected in the design of the revised Free Allocation Rules (FAR), nor in the ongoing draft benchmark review, despite the European Aluminium industry's expressed concerns during the consultation process on the expected cost pressure on alumina producers and growing fierce competition from third country producers[6]. The ETS FAR must also provide a scientifically grounded framework for CRMs. Given that the revision of the ETS Directive is now underway, a relevant **provision should be introduced to mandate product benchmarks for CRMs where EU production exists**, and decarbonisation options are limited.

The absence of a dedicated product benchmark for alumina is therefore inconsistent with key EU policy objectives and undermines the climate mitigation and industrial resilience ambitions outlined in the Clean Industrial Deal, the Critical Raw Materials Act and recent Steel and Metals Action Plan.

Please find below further explanation of why swift action is necessary.

Why alumina refining urgently needs an ETS product benchmark

Alumina refining currently falls under generic "fallback" heat and fuel benchmarks[7] derived from unrelated sectors with fundamentally different processes, temperatures, and fuel options. Many of these sectors use biomass and low-temperature methods[8], which are technically unfeasible for alumina's high-temperature Bayer process that requires constant heat supply up to 250MWh/h at 300°C and 60bar pressure with gaseous fuel to have clean combustion[9]. The

[4] For similar reasons, a separate product benchmark for aluminium recycling is also needed. See our letter to the European Commission, 16 June 2025
[5] See consolidated text of the ETS Directive here, June 2023
[6] European Aluminium, "ETS FREE ALLOCATION RULES (FAR) REVIEW", December 2023 [link]
[7] See Implementing Regulation (EU)2021/447 of 12 March 2021 determining revised benchmark values for free allocation of emission allowances for the period from 2021 to 2025 pursuant to Article 10a(2) of Directive 2003/87/EC [link]
[8] These smaller, lower-temperature installations record lower emissions levels that are unattainable by alumina refineries. This will force a steep reduction in free allocation, raising costs and risking further plant closures amid already high energy and emissions costs. Importantly, biomass is not uniformly available across the EU, which places installations in countries with limited access to biomass, at a significant competitive disadvantage compared to those in countries with easier access.
[9] A recent study conducted by Ramboll confirmed the superior climate performance of European alumina refineries.

upcoming reduction of 34%[10] versus 2025 or 50% versus 2019 in the heat benchmark is based on such biomass-using installations, making it inappropriate for alumina refining.

This mismatch creates a serious carbon leakage risk due to:

- The fact that Biomass is not uniformly available across the EU;
- Biomass is not suitable because of the required high temperatures and gaseous fuels needed for a clean combustion;
- Biomass cannot provide a steady supply of high-pressure heat for the production of alumina;
- Rising ETS costs without viable decarbonisation solutions widely available on the market[11].

The cost impact on alumina refining is reaching untenable levels. According to forecasts by our member companies, the 2026 benchmark update will drastically slash free allocation (by about 50% vs. 2019), effectively doubling the sector's carbon cost burden from ~3% of the alumina price today to roughly 7.5%.

European Aluminium collected figures from four out of the five alumina plants in the EU, and has done a forecast of the expected CO2 costs under the revised benchmark levels based on production level data between 2020 and 2022[12]. Assuming a CO2 price of 100 EUR/ton, the share of ETS costs for these plants would represent between 6% and 13% of today's global price for alumina. These percentages will continue to increase as the ETS price increases. Since alumina is priced on a global market, European producers cannot pass these additional costs on to consumers. Since the fallback benchmarks applied to alumina reflect a level of CO_2 performance and are not technically achievable for any refinery, even the best performers are left exposed to disproportionate costs without being incentivised to further decarbonise.

As a result, the four remaining alumina plants still operating in Europe will not be able to continue under a regulatory cost burden equal to 6–13% of the sales price—especially when none of their global competitors face similar costs.

Therefore, a dedicated alumina product benchmark would more accurately reflect the sector's emissions profile (e.g. a realistic best-in-class performance), enable output-based allocation, promote fairer treatment and efficiency incentives, and reduce carbon leakage risks. This would also align with the recognition of alumina as a strategic input under the Critical Raw Materials Act and support the resilience of domestic industrial supply chains.

A dedicated ETS product benchmark for alumina refining is essential to achieving EU climate, energy, and strategic autonomy goals. Without it, the competitiveness and viability of the European Aluminium value chain are seriously at risk—just as Europe is trying to rebuild and secure its critical materials supply base.

We recognize this request's complexity but believe its long-term benefits for EU climate and industrial policy warrant reconsideration. Urgent action is needed due to expected cost impacts next year.

[10] See Carbon Pulse Article "The market impact of the new EU ETS compliance cycle », August 2023 [link]

[11] Several companies are researching or piloting the use of electric boilers for Alumina digestion, but they are not yet available at commercial scale because of scale of steam demand, cost of electricity and plant infrastructure requirements

[12] These figures are an estimation, because for some refineries part of the hydrate production is sold and one plant stopped production in July 2022

We firmly believe that the European Aluminium industry and the European Commission – together with national authorities - must work closely together to create effective ETS Free Allocation rules that promote resilience, competitiveness, and genuine climate mitigation—avoiding deindustrialisation and carbon leakage.

We stand ready to support the Commission services and discuss the above in a technical meeting at your earliest convenience.

Yours sincerely,

Paul Voss

ALUMINA Refineries in Europe

Alcoa

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