Position on the Inception Impact Assessment Roadmap for an EU Carbon Border Adjustment Mechanism

April 2020

EUROPEAN ALUMINIUM

Contents

Introduction & summary

With this paper, European Aluminium, the voice of the aluminium value chain in Europe, would like to contribute to the European Commission's plans to introduce an EU wide Carbon Border Adjustment Mechanism (CBAM) and comment on the Inception Impact Assessment (IIA) Roadmap released last 4 March 2020[1].

In the IIA Roadmap, the Commission stresses that for the scoping exercise to select the sectors subject to a possible CBAM, this will have to "*be defined to ensure that the measure applies where the risk of carbon leakage is the highest".* We thus appreciate the European Commission's commitment to stop carbon and investment leakage, and ambition to address such issue with new tools like a CBAM.

However, from a preliminary assessment of the Commission's IIA Roadmap and discussion with our membership, **we clearly see that a CBAM for the aluminium industry, which is one of the most, if not the most exposed sectors to carbon leakage, is not the best tool to achieve such policy objectives.**

One of the reasons behind this is that the carbon cost on the electricity price is delinked from the electricity producers' GHG footprint. It is thus our view so far that **adequate indirect costs compensation schemes and free allowances would still be the optimal way to protect our value chain from carbon leakage** in Phase IV of the EU ETS[2], given our sector's significant electro-intensity in the production process and the specific global challenges we are facing, both in terms of trade and competitiveness.

Aluminium production and its value chain is in fact very much different to other industries which are also exposed to Carbon Leakage, as for instance steel. This leads to numerous complications with regards to how a CBAM could effectively be implemented.

As we explain in this paper, **one major challenge, among many others, is for example how to measure carbon intensity considering aluminium's unique electro-intensive in the smelting process and the related indirect emissions**. We see that replacing free allowances and CO2-compensation with a CBAM, as suggested in the

[1] See here European Commission Inception Impact Assessment Roadmap on the proposal for a Directive for an EU Carbon Border Adjustment Mechanism

[2] Under EU State Aid Rules, to address carbon leakage of electro-intensive industries, Member States can give compensation to certain sectors for the increases in electricity prices as a result of the indirect costs of the EU ETS. These Guidelines – often referred to as 'the ETS State Aid Guidelines' are currently being reviewed. New Guidelines expected to be established later in 2020 and will set the rules throughout Phase IV up to 2030. See here our response to the European Commission's consultation on the draft ETS State Aid Guidelines (March 2020).

Commission's inception impact assessment, would have severe effects on the entire European aluminium value chain and its customers.

At the same time, given the still many unknowns on the possible design and scope of such a measure, we have put together in this paper **a set of key principles and elements that the European Commission should carefully take into consideration if it had to introduce an effective CBAM for the Aluminium value chain**. They are summarised below:

- A CBAM must **not undermine or replace existing carbon leakage measures such as ETS free allowances and indirect cost compensation.** These should remain in place, be prioritised and improved;
- A CBAM would have to **cover the entire value chain, upstream and downstream, from the primary product down to the final product containing the commodity.** If not carefully thought through and prudently implemented**, there are concrete risks of increasing costs across the entire supply chain and thus eventually undermining (rather than protecting) our industry's competitiveness in a world market;**
- A CBAM **must not replace, diminish or impair an effective trade policy, existing duties or affect trade defense measures like Antidumping and Anti-subsidy tariffs as well as Safeguards;**
- Policymakers should first **carefully assess the specificities of the aluminium value chain compared to the other envisaged sectors** (eg. steel, cement).
- If the CBAM also covers the carbon content for **indirect** emissions in the imported product, then it must also reflect the additional indirect **costs** European producers face compared to other global producers, in order to ensure a global level playing field (due to marginal pricing in European power markets, indirect costs are not directly correlated to indirect emissions, as explained in this paper). **Hence it is essential that indirect costs compensation is kept alongside the CBAM**. The two can co-exist as long as they do not cover the same cost.
- Overall, designing a system taking into account the specificities of the Aluminium value chain and global trade flows of the commodity, will be an extremely complex task. **It will be paramount to first clearly assess the impact of a CBAM at each stage of the aluminium value chain.**
- A legitimate **and robust monitoring, reporting and verification (MRV) system** for collecting and disclosing the direct and indirect emissions of the affected products will be needed.
- **Any** proposed **mechanism should be WTO compliant, not undermine the existing framework, should avoid creating additional burden, and should foresee tools to effectively avoid its circumvention.**
- **Financial revenues** from the system **should be used primarily to encourage research and innovation in carbon-reducing technologies and investments for the decarbonisation of the European industry**.

In light of the challenges and complexities above, it is our preliminary view that a CBAM for aluminium is not an adequate instrument to address carbon leakage in our sector. We invite the Commission to instead improve the existing framework and consider other tools to support our industry's transformation and commitment to the EU's Green Deal objectives. This especially in view of the announced higher climate ambition for 2030 and our sector's unique and advanced electro-intensive nature compared to our energy intensive industries in Europe (e.g. chemicals, steel, cement).

The Aluminium value chain

Europe's aluminium production is already one of the least carbon-intensive in the world. Furthermore, the European aluminium industry's carbon footprint will continue to decline as the European electricity mix decarbonises. Given

that the production process for primary aluminium is already fully electrified (in line with the Commission's 2050 long-term strategy), the decarbonisation of the power sector alone will lead to a 58% decrease of the carbon footprint of Europe's primary aluminium production by 2050 (compared to 2014 levels)[3].

Aluminium's unique properties and uses in energy-efficient products for buildings, packaging and mobility (amongst others) also make it an essential material in the transition towards carbon neutrality. It is a key element for the production of the technologies that will lead Europe towards carbon neutrality, such as RES units and electricity/data transmission grids. Recycling aluminium is another important way of saving CO2 emissions and energy.

Preserving our primary and semi-manufacturing production as well as further developing our recycling activities will be absolutely necessary in order to meet the growing demand for aluminium products, while reducing our dependency on imports. The EU28 still imports approximately 50 percent of its aluminium ingot requirements[4]. Norway and Iceland, as part of the European Economic Area (EEA), are the largest exporters of primary aluminium to the EU. Other major exporters of primary products to European countries are Russia, the United Arab Emirates and Mozambique, while semi-fabricated and finished products are imported from several countries based on primary metal from China and others with high GHG footprint. Overall, domestic demand of aluminium is fulfilled through both primary and recycled production[5].

Furthermore, over the past five years, Chinese exports of aluminium products to the EU have more than doubled, particularly in the case of semi-fabricated products (flat rolled products, including foil, and extruded products). The carbon footprint of these imports is much higher than the equivalent European production (*90% of Chinese primary aluminium production is based on energy from coal-fired power plants*[6]).

Importance of preserving existing carbon leakage measures

Carbon intensity of primary aluminium production in Europe has decreased by more than half since 1990, via improvements in energy efficiency, reduction of PFC emissions and anode consumption from the electrolytic process. [7] However, carbon leakage is already happening in our sector because the carbon cost on the electricity price is delinked from the electricity producers GHG footprint: despite a growing global demand for our metal, Europe has lost more than 30% of its primary production capacity since 2008, and this production is being replaced by imports from other regions in the world. Aluminium competes with other materials in its key markets but, given its high electro-intensity, it faces different regulatory and cost challenges compared for example to steel.

To date, there are only 16 smelters remaining in the EU 28[8], meaning that approximately half of our demand for primary material relies on imports from third countries. Of these imports, 30% come from 10 smelters in EFTA countries, Norway and Iceland, regulated under the EU emissions trading scheme (ETS). The idling of smelting capacity in the EU and the lack of investment in new capacity is explained to a great extent by the fact that Europe has higher electricity prices compared to its main competitors[9] (Russia, UAE and China), whereas electricity accounts for roughly 40% of primary aluminium production costs. Higher electricity prices in Europe are attributable to regulatory costs -mainly as a result of the EU's climate-related policies- as is the case with power producers passing

[3] See European Aluminium Vision 2050 report here
[4] See European Aluminium Digital Activity Report 2018 – 2019, Market Overview here
[5] See European Aluminium Vision 2050 report here , p. 16: According to our scenario analysis, with supportive policies by 2050, recycled and primary are expected to have almost equal shares of total European demand
[6] See: http://www.world-aluminium.org/statistics/primary-aluminium-smelting-power-consumption/
[7] See European Aluminium Vision 2050 report here
[8] See European Aluminium Digital Activity Report 2018 – 2019, Section II: Market Overview here
[9] See CEPS Study, commissioned by DG ENERGY, here "*Composition and drivers of energy prices and costs in energy intensive industries*", 14 January 2019

costs of buying emission allowances under the EU ETS (indirect carbon costs). No aluminium companies outside Europe face similar carbon costs, whereas various other regulatory costs are also exclusively European. Given that aluminium prices are set in global markets, European producers are not able to pass these extra costs on to consumers without losing significant market share. Furthermore, some players in the global aluminium industry are also heavily subsidised[10].

To this end, the Commission adopted in 2012 the Guidelines on certain State aid measures in the context of the greenhouse gas emission allowance trading scheme post-2012 ("2012 ETS Guidelines") for the purpose of addressing the risk of carbon leakage. The guidelines allow Member States to compensate electro-intensive undertakings in sectors exposed to international trade, for the increase in electricity prices resulting from the EU ETS costs passed on by power producers, so called "indirect costs". DG Competition is now reviewing the Guidelines for the trading period 2021-2030 (Phase IV) of the ETS. The European aluminium industry's survival vis-à-vis competition from global players is absolutely dependent on the compensation of these ETS indirect costs, through Member States compensation based on these guidelines.

ETS indirect cost compensation is currently partial, degressive and uncertain across the EU. This has led to increased uncertainty for aluminium producers in Europe, who will face even higher carbon costs in phase IV of the ETS, thus adversely affecting their ability to engage in long-term planning (crucial for capital-intensive industries). The global competitiveness of our sector will also depend on the outcome of the evaluation of the Guidelines on State Aid for Environmental Protection and Energy (EEAG), which will address incremental regulatory costs related to EU energy and climate policies under the upcoming European Green Deal initiative.

Therefore, in the short term, the Commission should focus and improve the existing carbon leakage instruments for both direct and indirect costs by making them more adequate and proportional, which is absolutely necessary in order to protect the global competitiveness of Europe's most electro-intensive sectors.

Preliminary considerations

Aluminium production and the value chain is very much different to other industries, as for instance steel. This leads to numerous complications with regard to how a CBAM could effectively be implemented on imports of aluminium products. One example of a major challenge will be how to measure carbon intensity, considering aluminium's unique electro-intensive in the smelting process and the related indirect emissions.

This means that the greater part of its carbon footprint consists of **indirect emissions**, unlike to steel and cement production, and **therefore depends on the carbon content of the electricity grid.**

Keeping in mind these complexities, the Aluminium industry believes that:

- A CBAM should **not undermine or replace existing carbon leakage measures such as ETS free allowances and indirect cost compensation,** which should remain in place, be prioritised and improved;
- **A CBAM must not replace, diminish or impair an effective trade policy, existing duties or affect trade defense measures like Antidumping and Anti-subsidy tariffs as well as Safeguards;**

[10] See OECD report "*Measuring distortions in international markets: the aluminium value chain*", January 2019: China affects international prices through subsidised dumping. It produces 57% of worldwide primary aluminium, compared to 10% 15 years ago. According to OECD, 85% of the $70bn support to aluminium companies worldwide went to just 5 Chinese firms.

- Policymakers should **carefully assess the specificities of the aluminium value chain compared to the other envisaged sectors**. **If not carefully thought through and prudently implemented, there are concrete risks of increasing costs across the entire supply chain and thus eventually undermining (rather than protecting) our industry's competitiveness in a world market;**
- Overall, designing a system taking into account the specificities of the Aluminium value chain and global trade flows of the commodity, will be an extremely complex task;
- Any proposed mechanism should not undermine the existing framework, should avoid creating additional burden, and should **foresee tools to effectively avoid its circumvention.**

It will thus be paramount to first clearly **assess the impact of a CBAM at each stage of the aluminium value chain.**

Border adjustment vs carbon leakage measures

Several proposals for a CBAM focus on levelling out the carbon costs faced by European producers with those of foreign producers. This would in theory mean that as a default, all imported products would face the same climate-related costs as products produced in Europe.

There are also proposals which foresee that producers in third countries would be able to apply for a company-specific assessment based on their actual emissions. This would mean that foreign producers with lower emissions than EU producers would pay less tax, but foreign producers with higher emissions than the EU average would not pay more than the default tax based on average EU costs. In order for a CBAM to have a clear climate rationale, **it must ensure that a product with a higher carbon footprint is taxed higher than a similar product with a lower carbon footprint**.

The challenge is how to measure the carbon footprint of aluminium and how to price it considering:

- The absence of a global carbon market;
- Its electro-intensive nature;
- The issue of indirect emissions and indirect ETS costs;
- The issue of which price to be used for calculating a possible tax levy as long as the prices of EU allowances are volatile.

However, even if a CBAM includes taxing indirect emissions in imported products, this would not protect European electro-intensive industry from carbon and investment leakage caused by the indirect CO2-costs, given the marginal pricing system used in European power markets:

*European producers' exposure to indirect EU ETS costs is determined by the carbon cost that is inherent in the marginal electricity price (regardless of the carbon content of the electricity that is actually consumed). Therefore, the only way to create a genuine level playing field (thereby ensuring WTO compliance) would be for the CBAM to also focus on **indirect costs**, rather than being limited to measuring **indirect emissions**[11].*

In other words, there is no direct link between the carbon content of the electricity consumed and the indirect costs passed on by power providers, which aluminium producers would producers face even when consuming completely decarbonised electricity (e.g. via a renewable PPA). Electricity prices are set by the marginal unit, which is often a

[11] For more on marginal pricing see EC Impact assessment SWD on EU Electricity Markets reform (30.11.2016) and EC Impact assessment Report on 2012 State Aid Guidelines on indirect costs 22.05.2012

natural gas or coal/lignite plant that faces carbon costs, and therefore all European electricity prices contain an inherent carbon cost, which is not directly correlated to the carbon footprint of the electricity in question.

As a consequence, a CBAM setting an additional duty on an imported aluminum product based only on its environmental footprint (encompassing both direct and indirect emissions) would theoretically either:

- incentivise third country producers to reduce their footprint to avoid paying the additional duty;
- or (more likely) cause a shift of trade flows so that low-carbon material is imported into the EU and the high-carbon material will remain traded outside the EU, thus failing to achieve the EU's international commitment to push for the reduction of overall global emissions (in fact this would more likely lead to an increase in global emissions).

It would however **not be an effective tool for the short-term to ensure a level playing field with regards to production costs for European producers against the rest of the world**. Therefore, indirect cost compensation would have to be maintained alongside such a scheme in order to prevent carbon leakage.

Key principles for a CBAM fit for the aluminium value chain

EU policymakers are increasingly looking into how to design a CBAM to step up the EU's climate ambitions vis-à-vis other global players. Bearing in mind the challenges and complexities above, we believe that should it cover Aluminium, **the following conditions will have to be met and carefully considered in any future impact assessment work** in order to preserve and grow our value chain in Europe:

- A CBAM should **not replace nor undermine existing carbon leakage measures such as ETS free allowances and indirect cost compensation**. **ETS indirect costs compensation schemes should remain in place and not be diluted: only** the **European** aluminium industry faces CO2 costs passed through electricity prices. For primary aluminium producers indirect EU ETS costs are 6 to 7 times larger than the direct costs. Due to the marginal price setting mechanism in the European power market, even a strongly decarbonised electricity supply will still bear indirect CO2-costs. For this reason, setting a CBAM on indirect emissions alone will not mitigate the carbon leakage risk due to indirect CO2 costs. **Hence it is essential that indirect costs compensation is kept alongside the CBAM**. The two can co-exist as long as they do not cover the same cost.
- **A CBAM should put a price based on the actual carbon footprint of imported products and reflect the carbon costs:** A CBAM should firstly have a clear climate rationale. A product with high carbon footprint should be taxed higher than a similar product with low carbon footprint**.** At the same time, in case the CBAM also covers indirect emissions, then it is crucial to ensure that the relevant calculations take into account the marginal pricing system used in European power markets in order to ensure a level playing field in terms of indirect costs.
- **A CBAM would have to cover the entire value chain, upstream and downstream, from the primary product down to the final product containing the commodity**. If this is not the case, the downstream segment might have an incentive to move production out of Europe, as importing the primary material would become too expensive. In addition, going down the value chain and depending on the specificities of each market, businesses may decide to delocalise in order to source components directly from abroad accessing them "CBAM-free". This would threaten the survival of upstream producers in Europe. As an example: if only primary aluminium were covered by the CBAM, road wheel producers would move production out of Europe

in order to avoid becoming uncompetitive and European automotive OEMs would source finished aluminium road wheels from abroad – CBAM-free.

- As explained above, due to marginal pricing, European electricity prices are impacted by the EU ETS cost, regardless of the GHG footprint of the electricity in question. For this reason, **all well-designed and functioning tools designed to address industry CO2 emissions and carbon leakage, such as ETS free allowances and indirect compensation must remain in place**. There should be no trade-offs and complementarity must be ensured. Related to this, the CBAM **should not apply to countries that have joined the EU ETS system or that have similarly stringent tax systems on emissions**;
- **A CBAM should focus on emissions across the whole life-cycle of products:** For example, the electrolysis process is where there are large differences in the CO2 emissions pattern, due to difference in indirect emissions (a result on the CO2 content of the electricity consumed). Other parts of the value chain have much less variation in emissions, though alumina production is also heavily reliant on carbon-intensive heat-production outside of Europe. Thus, the first focus of a CBAM should be on the carbon footprint of the primary metal, to then be used as a basis for further carbon footprint assessments along the value chain. For instance, if a downstream product is produced in Turkey with primary metal from South Africa, the carbon footprint of the downstream product should be based on both the South African footprint (with regard to the primary metal) and the Turkish one (with regard to processing in Turkey).
- A **legitimate and robust monitoring, reporting and verification (MRV) system** for collecting and disclosing the direct and indirect emissions of the affected products will be needed, including the aluminium content in each product. A robust MRV system is absolutely necessary in order to ensure that third-country exporters are not able to circumvent (or otherwise 'game') the CBAM. For example, 90% of Chinese primary aluminium production is based on coal-fired electricity generation, whereas the remaining 10% is based on hydropower[12]. Therefore, without a robust disclosure system, a Chinese exporter could simply declare that its aluminium was produced using hydropower (even if this isn't true), in order to bypass the CBAM. Third countries would be incentivized to re-route all their 'cleaner' production to Europe (displacing European production), while continuing to cover demand across the rest of the world using carbon-intensive production. This would actually lead to an increase in global emissions, i.e. carbon leakage.
- **The CBAM system needs to be WTO Compliant:** Aluminium is already highly politically exposed due to US Section 232 tariffs and the subsequent retaliatory actions. The introduction of a CBAM could trigger an avalanche of WTO complaints against the EU by third countries. If the EU lost the disputes, what could follow would either be the EU introducing changes to its CBAM system, which would create uncertainty for business; or WTO-authorized tariffs issued against the EU;
- The **EU should be prepared for retaliation from other economies and assess its implications on EU companies' market access in third countries**.
- Financial revenues from the system should be used primarily to encourage research and innovation in carbon-reducing technologies and investments for the decarbonisation of the European industry.

[12] http://www.world-aluminium.org/statistics/primary-aluminium-smelting-power-consumption/

To conclude, all the elements above must be taken into account in upcoming impact assessment work, which should also include a sensitivity analysis of CO2 prices based on the impact of the CBAM and evolution of the carbon price. If ignored there would be severe negative implications for our industry, including re-location of parts of our value chain or even further reduction of primary production in Europe. The EU's priority should firstly be to maintain and improve indirect ETS costs compensation schemes and trade defense instruments to protect and preserve our value chain in Europe.

For further information, please contact:

Sandro Starita
Director Environment, Health and Safety & Sustainability
P +32 2 775 63 61 / M +32 494 52 59 04

Emanuele Manigrassi
Public Affairs Manager
P +32 2 775 63 97 / M +32 471 73 53 06

European Aluminium, Avenue de Tervueren, 168 – 1150 Brussels, Belgium