

Introduction

European Aluminium represents the entire aluminium value chain with more than 600 plants operating primary smelting, semi-fabrication, and recycling activities in wider Europe. Aluminium is made in Europe, recycled by Europeans, and used by our citizens in their cars, bikes, window frames, beverage cans. More importantly, it is also an essential element for the technologies delivering Europe's future carbon neutrality such as renewable energy, electricity, or data transmission grids¹.

Our sector is facing considerable challenges, with high electricity costs² and significant distortions in the global aluminium market, which depress global aluminium prices and threaten European producers. The OECD last year published a report³ confirming with fact-based evidence that Chinese state support is the root cause of the current market distortions. Despite a growing demand for our metal, Europe has lost more than 30% of its primary production capacity since 2008. To date, there are only 13 operating smelters remaining in the EU 27.

Aluminium is the only non-ferrous metal eligible under the framework, and we fully support the EU's taxonomy project. Given its unique properties and uses, it is a material with enormous climate mitigation potential. This was positively recognised by the TEG.

However, it is crucial that the envisaged framework will be usable and facilitates, not penalises, green investments in our sector, especially in the current economic recovery from the pandemic. The proposed rules must not lead to discrimination and undermine the sustainable recovery within our value chain in Europe, which is subject to fierce global competition.

On 20 November, the European Commission released the draft delegated Regulation outlining the Technical Screening Criteria (TSC) for aluminium manufacturing under the EU Taxonomy climate mitigation and adaptation objectives.

Our comments to the draft delegated Regulation

Our key message

We believe the fairest way to assess the sustainability of the primary production in Europe for the EU Taxonomy's TSCs for climate mitigation and adaptation would be to follow the methodology of the **Aluminium Stewardship Initiative (ASI)**⁴. **ASI brings together the most robust and recent set of requirements for the aluminium industry encompassing all dimensions of sustainability.** ASI's performance standard should be embedded in the EU sustainable finance regulatory framework, because it is far more advanced in integrating ESG sustainability aspects than the current Commission proposals and is widely used by financial markets participations and the London Metals Exchange (LME). This would facilitate international alignment and legal certainty for investors and be in synergy with

¹ See JRC [Report](#) "Raw materials demand for wind and solar PV technologies in the transition towards a decarbonised energy system", 2020

² See CEPS Study, commissioned by DG ENERGY, [here](#) "Composition and drivers of energy prices and costs in energy intensive industries", 14 January 2019

³ 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

⁴ ASI has taken 7 years to build a standard for the aluminium value chain, based on consensus with industry and civil society and covering a holistic approach to governance, social and environmental performance. For further information, see ASI's website and proposed methodology [here](#)

the work of the new Sustainable Finance Platform, while delivering ambitious yet solid and science-based criteria for the sector.

We are very concerned that the approach chosen for indirect emissions risks to undermine green investments across the value chain in Europe. The stringent thresholds for indirect emissions included in the TSC will lead investors and financial market participants to **the erroneous conclusion that the majority of aluminium production in Europe is either not sustainable (climate mitigation) or even significantly harming the environment (climate adaptation), even though their average carbon footprint (7 tCO₂/tAl) is around two times lower than the global average and three times lower than the footprint of Chinese aluminium production (which accounts for around 56% of total aluminium production across the world).** The Taxonomy will affect companies' cost of capital and potentially their access to EU funding. The proposed criteria are overly stringent, and in certain cases even completely impossible to meet, which will harm European companies and benefitting more carbon-intensive producers in other regions of the world (leading to carbon leakage). European aluminium smelters, amongst the least carbon-intensive in the world, cannot possibly be considered as 'doing significant harm' to the environment. Technology development has already reduced direct emissions substantially, bringing the best installations already close to the theoretical limit.

On the latter, the draft Delegated Regulation now introduces a new threshold under the "do no significant harm" (DNSH) criteria for the climate adaptation objective referring to (i) the median value based on the methodology and data collected for the definition of the revised ETS benchmarks for phase IV, and (ii) the average carbon footprint of the European electricity mix. **This is at odds with the TEG's original proposal** which recommended to have "an internationally recognised method for determining low carbon transition pathway or (2) that are lower than the average global emissions (based on emission performance standard determined by internationally recognised data) for that economic activity". **Such new proposal, which is strictly based on the carbon content of the electricity consumed and therefore its location, does not take into account the global dimension of our value chain. Basing the DNSH criteria on the average footprint of the European electricity mix disregards the important differences that exist between the electricity mixes in different Member States.** As a result, it will be completely impossible for aluminium smelters in certain Member States (e.g., Germany, Greece, Romania) to match this threshold. These producers will be labelled as 'doing significant harm' to the environment, despite having a carbon footprint that is 50% lower than the average global footprint for aluminium production: as a result, said industries will be essentially blocked from much needed financing in order to proceed with capital-intensive investment (where possible) towards further emissions' reduction. This is in fact compromising the exact objective of the taxonomy.

The DNSH criteria for climate change mitigation must also be amended to reflect the global average carbon footprint for aluminium production. This is absolutely necessary in order to ensure that European smelters are not labelled as doing 'significant harm' to the environment despite having a carbon footprint that is ~50% lower than the global average. If this issue is not fixed, European aluminium producers will be penalized, to the benefit of more carbon-intensive producers in other regions of the world, leading to carbon leakage.

Finally, we are also concerned by the approach taken by the EU Commission regarding the eligibility of the manufacture of energy efficiency equipment for buildings. We believe the TSC to define the substantial contribution of this activity to climate change mitigation must be enlarged to all performance characteristics that influence the thermal performance of products and differentiated at Member State or regional level.

Comments on the approach to the direct emissions

We regret to see that the EU Commission has decided to maintain a CO₂ threshold for direct emissions based on the average of the best 10% installations. As explained in our position paper on the TEG Recommendations, such an approach would not stimulate green investments in Europe and have the opposite effect of the proposed taxonomy.

- **It does not include the upper parts of the value chain** (alumina refining and bauxite mining). It includes only “Unwrought non-alloy liquid aluminium from electrolysis. Expressed in tonnes measured between the electrolysis section and the holding furnace of the cast house, before alloys and secondary aluminium are added”;
- **The average of the best 10% represents an extremely small sample of installations:** 3 smelters considering EU27+EFTA, 2 considering only the EU. Being an average, this means that only 2 or 1 smelter respectively are in position to meet such threshold in Europe;
- A further complication is that every year the best(s) in class can be different plants. This is due to the fact that direct emissions from the aluminium production process depend very much on the stability of the production process; this can vary greatly from year to year. So, there is no certainty that a plant can meet the value on a given year, also because it is very close to the technological limit within the sector.

Comments on the approach to the indirect emissions (i.e. electricity consumption)

The 100 gCO₂/kWh and 270 gCO₂/kWh thresholds only depend on the geographical location⁵. Therefore, in practical terms, only primary aluminium smelters with access to nuclear or hydro power can meet such a requirement. In the EU 27 that would be a minimal number of smelters out of the 13 still operating. In other words, while we agree on the need for high ambition, this element is entirely a function of the smelter’s location and the local availability of carbon-free electricity. Most smelters have very little or even no control over it, thus relying upon the carbon content of the national energy mix. The Commission should further consider the conditions to create the enabling framework to facilitate green electricity sourcing in the industrial sector.

Furthermore:

- The ability to reach an indirect carbon footprint below 100gCO₂e/kWh in 5 or 10 years is completely out of the aluminium producer’s hands. A large corporate consumer in Europe cannot simply swap to renewable electricity, something a report⁶ published by DG ENER last year recognised. The barriers that limit electro-intensive consumers’ ability to decarbonise their electricity supply should first be removed:
- The costs for investing in self-generation or signing a Renewable Energy Power Purchase Agreement (PPA) in the EU are still too high. This is due to the uncertainty of electricity prices due to national regulatory components in the final price, high-up front investment costs, inadequate return on investment and costs related to grid connection;
 - Also, the shaping and balancing costs stemming from the variable nature of certain Renewable Energy (RE) sources are still too high;
 - There are no available solutions to address changes in the regulated component of the electricity supply, and in some countries, taxes are even charged on self-consumption;

⁵ The European average (which includes Norway and Iceland) is 130 g CO₂/KWh – see European Aluminium [Environmental Profile Report](#).

⁶ See [here](#) and [here](#) DG ENER Study by CEPS “Competitiveness of corporate sourcing of renewable energy”, August 2019

- Creditworthiness standards or bank guarantees requested by sellers of RE may be too costly or generous public support schemes may not be an incentive for a generator to enter into a PPA;
- In some member states⁷, the implementation of the ETS State Aid Guidelines for the compensation of ETS indirect costs does not allow companies purchasing renewable electricity under a PPA to receive aid.
- The delegated Regulation no longer makes eligible mitigation measures aimed to achieve the identified thresholds, thus ignoring the Commission's Technical Expert Group (TEG) initial recommendations⁸. In so doing, even investments aimed to increase industrial consumers' capacity to consume low carbon energy would not be eligible.
- On the contrary, there's a need to facilitate green electricity sourcing in the industrial sector. Renewable Power Purchase Agreements (PPAs) and self-generation by industrial consumers should be supported and facilitated via public support. This could be achieved, for example, within the context of the Important Projects of Common European Interest (IPCEI) framework as well as in the ongoing review of the EU State Aid Guidelines for Environmental protection and Energy (EEAG).

Our proposal: The Aluminium Stewardship Initiative (ASI)

Our view is that the fairest way to assess the sustainability of the primary production in Europe for the EU Taxonomy's TSCs for climate mitigation and adaptation would be to follow the methodology and approach of the Aluminium Stewardship Initiative (ASI)⁹. This is the most robust and recent set of requirements for the aluminium industry encompassing all dimensions of sustainability.

ASI certified smelters must comply with a threshold of 8 tCO₂e/tonne of Al including scope 1 and 2 emissions, to be met for new smelters from 2020, and by 2030 or earlier for existing smelters. The ASI combined threshold would better represent and promote the lower carbon footprint of European smelters and mirror the evidence-based approach recommended by the TEG itself. Furthermore:

- The ASI Performance Standard was developed by industry experts and broader stakeholders and NGOs, and contains an extensive set of environmental, social and governance criteria, with the aim of defining best practice with regard to sustainability issues across the aluminium value chain. It is already referenced as one of the sources of information that the TEG relied on to develop its recommendations. Alignment with ASI is essential as the Sustainable Finance Platform will assess broader ESG considerations under its new mandate
- The ASI threshold is based on a comprehensive set of data¹⁰ based on the internationally used GHG protocol and based on a cradle to gate approach. It is not a set of mixed of thresholds, and it is the only standard and certification system that has been specifically designed for the entire aluminium value chain. It is not driven by a single issue or sector and foresee the participation as well of NGOs, governments, and broader stakeholders.

⁷ See [here](#) at pp. 23-27 section on main barriers: DG ENER Study by CEPS "Competitiveness of corporate sourcing of renewable energy", August 2019

⁸ The TEG (see p. 172 [here](#)) originally recommended that "Mitigation measures are eligible provided they are incorporated into a single investment plan within a determined time frame (5 or 10 years) that outlines how each of the measures in combination with others will in combination enable the activity to meet the threshold defined below actions"

⁹ ASI has taken 7 years to build a standard for the aluminium value chain, based on consensus with industry and civil society and covering a holistic approach to governance, social and environmental performance. For further information, see ASI's website and proposed methodology [here](#)

¹⁰ See statistics for primary aluminium production at IAI website [here](#)

- New primary aluminium smelting facilities must meet this target from 2020 onwards, whereas existing smelters must ensure compliance by 2030. The standard is going to be reviewed next year, with extensive consultation with stakeholders and adapted to the EU and international climate objectives.
- While it is true that the EU's higher climate ambition is not yet integrated in the standard, the revision seeks to address that "the ASI Performance Standard currently includes two smelter-specific criteria and general requirements that were set before the COP 21 agreement". The ASI GHG Working Group is actively working with GHG experts, members and stakeholders to develop new requirements that can be framed around the necessary GHG trajectories for the aluminium sector to fall within COP 21 targets.
- In other words, the EU's eagerness to lead on climate in this specific context could lead to the adoption of rules directly undermining the Taxonomy's broader objective (see recital 6) to shift capital flows towards more sustainable activities, based on a "shared, holistic understanding of the environmental sustainability of activities and investments. As a first step, clear guidance on activities that qualify as contributing to environmental objectives would help inform investors about the investments that fund environmentally sustainable economic activities".

Reaction to the approach for the eligibility of the manufacture of energy efficiency equipment for buildings

- For windows, legal requirements too often focus on insulation (Uw-value) while other aspects are equally important like solar gains (gw), air permeability (L, H), cooling through natural ventilation, natural light, etc. Secondly, there is no pan-European best window solution, but rather an optimal one adapted to each situation: climate where the building is located, building type, window orientation, etc. Best window from an environmental point of view is not always the one with the lowest Uw-value. We have developed here an animation and infographics to facilitate the understanding of the issue and to demonstrate why the "energy balance" method should be considered.
- We would therefore recommend that thermal performance thresholds should be defined at national/regional level, as a combination of Uw, gw and H values in energy balance formulas customized to each national/regional situation. The need to consider the energy balance was also highlighted in Commission Recommendation (EU) 2019/1019 of 7 June 2019 on building modernisation and in the Ecodesign Preparatory Study on window products (DG-ENER - Lot 32). Finally, when using U and g-values, it is important to take the one at window level i.e. Uw and gw, to avoid confusion with the values of window components. Our above-mentioned infographic also contains explanations about this. For doors, a similar reasoning as for windows can be applied, although solar gains (g-value) might be less important depending of the proportion of transparent area.
- For external cladding and roofing systems, insulation requirements should also be defined at national/regional level.

Conclusions

To summarise, the ASI standard is based on a more comprehensive dataset and a full assessment of emissions across the value chain. The average Carbon footprint of Al production in Europe (cradle to gate) is around 7 tCO₂/t Al. Our industry is global and the ETS benchmark methodology only captures a limited dimension of sustainability.

Since the electricity system is not yet decarbonized in all regions with primary aluminium production in Europe, the taxonomy should create reasonable incentives for other primary producers across the bloc which do not have a fully decarbonised grid to allow them to develop credible pathways to reduce emissions.

Aligning the EU Taxonomy with the ASI standard will be an essential incentive to push for a more sustainable value chain in the EU fairly and gradually, while respecting international competitiveness and preparing the ground for its revision next year. It would also facilitate global alignment, particularly in the context of the work of the new EU Sustainable Finance Platform and its involvement in the International Platform on Sustainable Finance. For energy efficiency equipment in buildings, more performance characteristics should be combined, and thresholds should be defined at national/regional level.

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