

Public Consultation on draft ETS State Aid Guidelines

The intention of this document is to provide the input of the International Zinc Association (IZA) on behalf of the EU zinc electrorefining industry, to the draft ETS Guidelines published on the 14 January¹. This subsector of the NACE sector 2443 "Lead, zinc and tin production is far more exposed than the average NACE 2443 sector.

The document begins in section 1 by outlining our reaction on the 4 key issues we previously commented consultation responses (Inception impact targeted consultation). These areas are 1) level of Aid, 2) regional pass-through factors, 3) conditionality and 4) benchmarks. We then in section two outline positive elements in the draft Guidelines which should remain in the final Guidelines. Section three gives a short of assessment of other outstanding issues. In section four, we provide legislative amendments with justifications, in our 5 key areas. In the Annex, we show why, given our electro-intensity and price-taker status, zinc electro refining industry is at the highest risk of carbon leakage by providing details on our exposure to indirect costs as a % of gross value added and our market characteristics. Elsewhere, with regards the pass-through factors, it should be noted that all this information is supplemented by an attached memo issued by Eurometaux where additional background information is provided of why the geographical regions in the draft Guidelines should be altered.

1. Assessment in the 4 Key Issues

In this section, we give the reaction of the European zinc refining industry in the following key issues of the revision: a) level of compensation, b) regional pass through factors, c) conditionality and d) benchmarks.

a) Level of compensation

The relative importance of indirect ETS costs for a sector or company should be decisive for the level of compensation. The proportionality of aid needed to achieve the objectives of the Guidelines (preventing carbon leakage) will vary between eligible sectors and undertakings depending on the magnitude of indirect costs. Positively, the draft Guidelines has correctly understood this and come with targeted aid.

Paragraph 26 of the draft Guidelines say that at the sectoral level, the level of compensation will be 75% until 2030. While IZA has asked for at least 85% compensation because of the high exposure of the zinc electrorefining plants, a system of 75% compensation, provided a GVA limitation is also included, is a reasonable level of compensation.

As noted by IZA, on behalf of the zinc electro-refining industry, in our earlier consultation responses, degressive aid serves no function. Instead, the best way to capture improvements in an installations performance and decarbonisation of the power are to update the benchmark values; Commission explanatory note says that it "considers that this update of the efficiency benchmarks is better suited to capture any potential efficiency gains in the sectors concerned than a per-se reduction of the aid intensity". We agree with the Commission's assessment that aid intensity should be stable throughout the ETS period with a mid-term update of the electricity consumption efficiency benchmarks to consider most recent data and production processes.

¹ https://ec.europa.eu/competition/consultations/2020_ets_stateaid_guidelines/draft_ets_guidelines_en.pdf

Limiting exposure of beneficiaries to indirect costs as a % of their GVA

In addition, paragraph 30 in the draft Guidelines introduce the possibility for Member States to further limit the exposure of beneficiaries to indirect costs as a function of their gross value added (“GVA”). This possibility, which is currently included in the Energy & Environment Guidelines (EEAG)², is aimed at limiting the exposure of the most electro-intensive sectors for whom indirect carbon costs, when after applying 75% compensation, can make up a disproportionate amount of their GVA. The GVA limitation should be based on benchmark of the best performers.

We strongly welcome this new possibility. A continuation of the current State Aid Guidelines in Phase IV, without the GVA limitation, would not be enough to prevent carbon (and/or investment) leakage for the zinc electrorefining industry, given the high costs we remain exposed to even after the maximum permitted compensation is granted³. A more targeted approach, integrating elements from the EEAG, was badly needed in order to create a level playing field between eligible sectors.

However, while the principle of the GVA limitation is very positive and needs to be maintained, it could be improved by clarifying that the GVA limitation is at undertaken level and whom would be eligible for this limitation. We propose that the system be fully aligned with that of the EEAG which gives Member States the option of further limiting the costs that undertakings with an electro-intensity of at least 20% remain exposed to, to 0.5% of their gross value added. Zinc electro refining is extremely electro-intensive with an annual electricity consumption of 9 TWh in a total of 9 EU plants.

In section 2 (b) we outline how we believe this system should work and provide some suggested amendments.

b) Regional CO2 factors

The main purpose of the CO2 emission passthrough factor in the Guidelines is to identify the impact of CO2 emission costs on power prices in each market. The draft Guidelines are correctly based on market principles where the emission passthrough factor is delinked from the total electricity generation’s greenhouse gas footprint and decided by the price setting technology in each market.

However, emissions pass through factors and geographical areas are intrinsically interlinked and both need to be accurate. The proposal of splitting existing regions in more areas does not provide details on the underlying evidence and contradicts our analysis of greater markets convergence. Furthermore, the overly strict methodology for defining regional areas (1% price divergence in significant number of hours per year) does not capture the reality of energy markets where the emission pass through factor is influenced by neighbouring member states due to interconnections.

More and more intermittent renewable electricity results in more price volatility, hence higher price differences. Indeed, more and more intermittent renewable electricity will mean that prices become more extreme in periods of either power supply excess or shortage, and if these periods coincide with periods with limited transmission capacity, power price differences will be higher than before. This does not mean that markets are becoming decoupled. Consequently, this simplified approach contradicts the market evolution, the intended effects of market coupling and the EU’s objectives of completing the internal electricity market.

² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52014XC0628%2801%29>

³ Given our electro-intensive nature, the indirect costs of the EU ETS have a major impact on production costs of non-ferrous metals. For example, for primary zinc electrorefining, if the EU ETS carbon price is €30 a tonne, indirect costs alone will represent around 31% of GVA. Therefore, at a level of 75% compensation, indirect costs will represent 8% of a companies’ GVA after compensation.

i. Geographical areas

The draft State Aid Guidelines propose a fragmentation of the current Guidelines' geographical regions. The justification is an assessment in the report accompanying the draft Guidelines that price convergence in the Central and Western Europe (CWE) and Nordic zones has decreased.

Based on our analysis, we disagree with this assessment that convergence has decreased. In fact, cross-border interconnector capacity has consistently increased in the last ten years, and the improved physical connection is amplified by an increased use of flow-based market coupling. Furthermore, there are several factors that result in price differences between markets, as acknowledged by the consultant's report. These include amongst others, limitations in transmission capacity for various reasons (short term incidents, long term maintenance, hydrological situation and of course, an increasing share of intermittent generation. An empirical examination of day-ahead power prices shows more price convergence, not less, in most countries.

Price differences as used by the Commission can lead to flawed results if the regions are too small (i.e. when national emission factors are used instead of regional emission factors for connected markets as the Nordics and CWE). Empirical price data reveals that the differences between Finland and Sweden, proposed as a common region, are consistently higher than those for the price zones along the Norwegian- Swedish border. If we apply the Guidelines' own logic, Norway should therefore be included in the Nordic region. More specifically, the Nordic countries have been interconnected with a common price setting mechanisms the last 20-30 years, and there is sufficient information available to re-establish a single factor for this region encompassing Norway, Sweden, Finland and Denmark. Elsewhere, electricity dispatch models and analysis of price correlation between markets and also analysis of short-term limitation of interconnectors reveal that both the Nordic and the CWE region encompassing France, Germany, Belgium, Netherlands, Austria and Germany should be re-established as regions.

ii. Emission passthrough factors

The Commission proposes to continue the current approach by calculating the weighted average of the CO₂ intensity of electricity produced from fossil fuels within the defined geographical area / regions for the beginning of Phase IV4.

This methodology is straightforward and has been able to establish reasonable accurate emission factors that are sufficiently reflective of actual pass-through factors in thermal markets. However, this methodology can be very inaccurate when connected areas are defined too small. Having too small of regions would result in a large differential between the carbon pass through values set in the Guidelines and the actual situation which consumers face in the market.

Indeed, for regions with a high proportion of non-fossil power production like Norway, Austria and France, the CO₂ emission factor is to a large degree determined by exchange (via interconnectors) with thermal-dominated neighbouring countries. The effect of this segmentation will be that the Guidelines will establish a lower emission passthrough factor than what is actually paid in the market. Therefore, the carbon leakage risk may paradoxically increase for industry located in areas with cleaner power generation.

⁴ The Commission notes that if more data is available, the Commission may revise the methodology from 2025 onwards.

iii. Recommendation

There are several different approaches to address this inaccuracy. We would suggest policymakers consider the following:

- 1) There is enough information to re-establish the Nordic and CWE as regions as in current Guidelines, reflecting the actual market integration, based on provided information.
- 2) The Guidelines should introduce the possibility of using electricity market models as additional analysis for defining the geographical regions, to be approved by the Commission, in order to obtain the most accurate factors.

Electricity market models can accurately define the factors in countries/regions where the actual pass-through factor is influenced from connected markets and not only from domestic emission-intensive power generation. There is a broad consensus for such models at least in the Nordic market, which is the longest functioning market in Europe.

In the attached Eurometaux memo, the issue is explained in more detail.

c) Conditional based compensation

Given the electro-intensive nature and the fact that we compete globally based on electricity cost, zinc electrorefining industry has the strongest inherent incentive to be as energy efficient as possible. Given this, we a priori have reservations about making compensation conditional upon energy efficiency. Nevertheless, we understand the conditionality requirements proposed by the Commission and wish to share the following input.

Paragraphs 53 and 54 describe the conditionality to receive aid. We believe certain modifications to paragraph would make the system more efficient:

- a) **Onsite renewable energy generation:** Given the huge amounts of electricity that are needed for the electrorefining of zinc, stipulating that 50% of this energy should come through “on-site renewable energy generation facility” is not even technically feasible (placing a wind park within the site to cover 50% of energy needs would demand a huge, unrealistic amount of space). Our industry has signed several large PPAs with wind and solar power energy providers in recent years⁵, but the investments in wind and solar parks themselves should be done where there is space available for economic investments and the wind and sunlight are readily available, not within industry sites.
- b) **Linking with direct emissions (80% share):**
 - The objective of indirects compensation is to reduce the risk of carbon leakage due to the increased electricity prices brought about by the EU ETS. Using a major part, up to 80% of indirects compensation to address direct emissions, is not in line with this objective. Incentives to reduce direct emissions should not be included in this piece of legislation but in other legislation (ETS Directive).
 - In addition, requesting that electro-intensive industries use 80% of the electricity price compensation to address direct emissions may not be possible and not in line with the stated intentions of operating aid. Having fully electrified its processes over the past 20-30 years, primary zinc electro-refinery is now fully electrified with 99% of its emissions are indirect and only 1% of its emissions direct. Suggest that a zinc

⁵ For more information on the corporate sourcing of intermittent renewable electricity in the non-ferrous metals sector, please see the following link <https://www.ceps.eu/wp-content/uploads/2018/12/Eurometaux%20presentation%20RES%20Corporate%20Sourcing%20CEPS%2029.01.2019.pdf>

refinery should invest 80% of the compensation it receives for indirect carbon costs to address its negligible 1% direct emissions would be erroneous. In addition, it would give the wrong message on encouraging industrial electrification.

d) Benchmarks

Annex III will define the electricity consumption benchmarks, with paragraph 14.13 outlining the electricity consumption efficiency benchmark and with paragraph 66 outlining that the benchmarks should be updated in 2025.

Overall, benchmarks are the best methodology to incentivise energy efficiency and emissions reduction. We believe that benchmarks should be based on actual data for 10% best performers and thus, disagree with part of the methodology to decide the benchmark.

We disagree that benchmarks should be linked to the ETS article 10a (2) as an arbitrary yearly decrease will not be based on real data. It would result in an arbitrary reduction of the level of compensation, leading to the risk of insufficient protection against the risk of carbon leakage.

We support the continuation of current definitions at Prodcom 8 level. We would recommend that the European Commission, working in tandem with a consultancy company, collect electricity data at Prodcom 8 level with the involvement of respective commodity associations which request them. This would be a similar exercise to the process run in 2011/2012. There are 9 zinc electro-refining plants in the EU. The Benchmark should be drawn from performance of these 9 plants.

Elsewhere, as aforementioned, the GVA limitation should be based on benchmark of the best performers. This will provide further incentivise and ensure that aid is limited.

2. Positive elements which should remain in the Final Guidelines

a) Principle of Targeted Aid

We support the principle of targeted aid as describe in Paragraph 16 of the text which states “aid must be targeted towards a situation where aid can bring about a material improvement that the market cannot deliver itself.....the aid must change the behavior of the undertaking (s) concerned in such a way that it engages additional activity, which it would not carry out without such aid...”

The primary objective of indirects compensation is to prevent carbon leakage due to the indirect costs of the EU ETS. However, due to the reality that sectors and undertakings have different electricity intensity in production, the impact of indirect costs and hence, the carbon leakage risk due to the indirects costs of the EU ETS, is varies greatly between undertakings eligible for aid. If the aid is not targeted, the most electro-intensive undertaking, would face a substantially higher risk of carbon leakage. Thus, in order to achieve the stated objective of preventing carbon leakage, targeted aid is needed.

Introducing the principle of targeted aid would send the correct investment signal encouraging the further use of electricity to reduce direct carbon emissions. Furthermore, such an approach would be consistent with the

2050 long-term strategy which promotes the electrification of industry as one of the key pathways to meeting our 2050 decarbonisation objectives⁶.

b) Production Level

In our earlier consultation response, we have said that compensation should be based on previous year's production data. This will ensure that the system is more dynamic and will avoid overcompensation, which is an objective in state aid cases, while providing incentives for the industries growth investments. We welcome that in paragraph 27 (Maximum aid calculations) and paragraphs 14 (11), the Commission define the production level to be compensated based on previous year's compensation.

We fully support this methodology which, as aforementioned, will incentive growth. In addition, such a system will avoid over and under compensation and correct the current system of 5 years historical production which has resulted in not fully accurate compensation levels (Depending on industry's production levels) and thus, not provided incentives for growth.

c) CO2 price

In our earlier consultation response, we reported that the current CO2 price definition (average of the daily quotation of the EUA forward price of the year t during the year t-1) should be kept. We are pleased to see that in paragraphs 27 and 14.9, the Commission has decided to continue with its current definitions. Such a system will ensure that compensation is neutral to each company's power sourcing strategy.

d) Update of benchmark and pass-through factor parameters

In our consultation responses we noted that we fully support that benchmark and emission pass through factors shall be updated in 2025 to consider technology developments and the decarbonisation of the power sector. We support the Commission's proposal to have mid-term updates of benchmark and emission pass through factors in 2025.

e) Objectives of the Guidelines

Finally, we would flag that we are pleased that the new Guidelines show an increased understanding of electricity markets and the role of indirects compensation. Many inaccurate statements in the current 2012 Guidelines have been correctly removed.

Some text that has been correctly removed includes:

- **“Degressive Aid”**: Degressive Aid has been removed in the new Guidelines. This is correct as it should be noted that degressive aid, from a policy perspective, does not serve any function. Indeed, the decarbonisation of EU electricity markets will ensure that aid beneficiaries do not become dependent. In addition, the new Guidelines have removed the inaccurate working that decreasing aid will give incentives to go from grey to green power. The reality is that indirects compensation has no negative impact on the efficiency of the EU ETS. Power generators face direct emissions costs; therefore, the EU ETS will incentivise further decarbonisation of the power sector, independent of any indirect compensation to energy intensive industry.
- **“Contracts not impacted by CO2”**: We welcome that the Commission has removed wording in the previous Guidelines which stated that there might be some contracts not impacted by CO2. The reality in the European

⁶ A Clean Planet for all: A European strategic vision for a prosperous, modern, competitive and carbon neutral economy [COM(2018) 773 final] https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_en.pdf

market all power prices and contracts are based on market prices and not generation costs. As outlined in the documentation previously submitted to DG Competition, even when signing a PPA with carbon free sources, zinc industry still faces carbon costs in these contracts.

- **“Internal Market distortions”:** We welcome that the Commission has removed the inadequate argumentation that decreasing aid is necessary to reduce internal market distortions. The industry reality is that as price-taker industries, the real distortion is between EU and EU producers. Furthermore, with the EU, according to the Commission’s 2018 ‘State of the EU ETS’ report, Member States with compensation schemes in place together account for 70% of EU GDP. With Italy having recently come forward with a scheme, this will bring the number closer to 85%. Looking ahead, new schemes in Member States are expected in coming years.
- Elsewhere, the wording of the new ETS-Directive in 10a(6) says “Member States should adopt financial measures”. The 2012 Guidelines state that Member States “may adopt”.

3. Other Elements we want to address

a) Transparency & Reporting Requirements

Finally, according to paragraph 61, Member States must publish a report explaining why if compensation exceeds 25% of auction revenue. While we are aware that this is in the agreed the ETS Directive ⁷ and thus is a requirement, we would just like to flag that this is a strange requirement as there is no relationship between the need for indirects compensation and Member States auctioning income. For example, there are countries with close to emissions-free power generation that will have a relatively low auction revenue but may have a significant share of power-intensive industry. These countries will clearly need the spent more than 25% of their auction revenues (Which are negligible in the first place).

Elsewhere, it states that the report shall include relevant information on electricity prices. Even if it is stated “without prejudice to requirements regarding the protection of confidential information” it is rather peculiar since it is the indirect cost compensation that is linked to the EU ETS and not electricity prices for undertakings that should be of interest in such a report.

b) EEA Relevance

The first page does not mention the wording ‘text with EEA relevance’. This should be added in the final published version.

c) Level of exposure for zinc electrorefining sector in the Consultancy Report

The consultancy RAG ratings actually underestimate the exposure of zinc electrorefining industry. The assessment was done on NACE4 level for the sector 2443 “Lead, zinc and tin production”. The exposure for the subsector of Zinc electrorefining is much higher.

⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1581688702652&uri=CELEX:02003L0087-20180408>

4. Legislative Amendments

In this section, we provide some suggested legislative amendments to the Draft Guidelines. In the left column we give the Commission's text and in the right hand our suggested changes. All the suggested changes are marked in bold and italics. Below the suggested amendments we provide justifications.

A. Level of Aid

The principles and methodologies for level of aid described in Paragraphs 26 (75 % aid); paragraph 27 (max aid calculations); paragraph 30 (limiting exposure of beneficiaries to indirect ETS cost as a function of their GVA) will, if correctly designed, provide for more adequate State Aid compared to current principles for CO2 compensation. We therefore suggest the following amendments.

Paragraph 30 should be amended to ensure the achievement of the objectives and to better clarify that the GVA limitation will be at undertaking level:

Several proposals to amend Paragraph 30:

Paragraph 30	Proposed new text
<i>...for some sectors the aid intensity of 75% might not be sufficient ...</i>	<i>..... for some sectors undertakings the aid intensity of 75% might not be</i>
<p>Justification:</p> <p>The possibility for extra support above 75% is at undertakings level. Therefore, defining "sufficient" at sector level would not be significantly targeted and could lead to unintended effects. This would follow the approach that was adopted in the EEAG (Section 3.7.2)</p> <p>Our rationale is:</p> <p>a) A NACE eligible sector, for the purpose of this exercise referring to as sector 'X', may have a limited number of undertakings with an extremely high indirect cost. The remaining undertakings in this NACE code may be much less electro-intensive. As a result, the sector overall may be deemed as having only a medium exposure.</p> <p>b) In contrast, another NACE eligible sector, for the purpose of this exercise referred to as sector 'Y', may have no undertakings with extremely high indirect cost, but all the undertakings have a medium indirect cost. If the aid allocation is based at a NACE analysis only, this would mean that sector Y would have a higher exposure than sector X. However, the reality is that the electro-intensive undertakings in sector X as the most exposed.</p> <p>✓ <i>Thus, undertakings in sector X should be eligible for the extra aid, and not undertakings in Y.</i></p>	

Furthermore, it is said

Paragraph 30	Proposed new text
<i>... for some sectors the aid intensity of 75% might not be sufficient to ensure that there is adequate protection against the risk of carbon leakage</i>	<i>... for some sectors undertakings with electro intensity higher than 20% in the relevant sector the aid intensity of 75% might is not be sufficient to ensure that there is adequate protection against the risk of carbon leakage</i>
<p>Justification:</p> <p>The eligibility for extra aid should be more precise than <i>...might not be sufficient ...</i> To ensure the aid is targeted and to limit the risk of competition distortion within the internal market, the extra aid should be limited to the most electro-intensive undertakings on the eligibility list in Annex I. Therefore, sufficient should be defined. The definition should be electro intensity as defined in the provisions in EEAG paragraph 188 and paragraph 189. The threshold set in the EEAG is an electro intensity of 20% at undertaking level.</p>	

Furthermore, it is said:

Paragraph 30	Proposed new text
<i>...when needed, Member States may limit the amount of the indirect costs to be paid at undertaking level to [...] % of the gross value added of the undertaking concerned in year t.</i>	<i>...when needed Member States will have the possibility to limit the amount of indirect cost to be paid at undertaking level to 0,5 % of GVA ... for undertakings with electro intensity higher than 20% in the relevant sector.</i>
<p>Justification:</p> <p>The level of extra aid should be defined as in EEAG indirect cost to 0,5% of GVA for those with an electro-intensive greater than 20%.</p> <p>To be in line with the incentive effects in the Guidelines the GVA calculations as described in paragraph 30 could be defined to be based on the electricity consumption efficiency benchmarks to avoid that inefficiency is compensated more than the most efficient undertakings.</p>	

Paragraph 31 states....

Paragraph 31	Proposed new text
<i>When Member States decide to adopt the limitation [...] % GVA the limitation must apply to all eligible undertakings in the relevant sector...</i>	<i>When Member States decide to adopt the limitation [...] % GVA the limitation must apply to all eligible undertakings with electro intensity higher than 20% in the relevant sector.</i>
<p>Justification:</p> <p>There can be large differences of exposure within a sector. 75% might be sufficient to some undertakings within the sector, therefore, to obtain targeted aid limited to minimum needed, there must be clear definitions on eligibility.</p>	

Paragraphs 26 and 27 should be amended accordingly:

Paragraph 26	Proposed new text
<i>The aid is proportionate and has a sufficiently limited negative effect on competition and trade if it does not exceed 75 % of the indirect emission costs incurred.</i>	<i>The aid is proportionate and has a sufficiently limited negative effect on competition and trade if it does not exceed 75 % plus limitation of beneficiaries to indirect costs as a function of their GVA according to paragraph 30 of the indirect emission costs incurred.....</i>
<p>Justification:</p> <p>According to paragraph 30 the member States can limit the indirect cost further than 75%, therefore paragraph 26 should be amended to take into account any aid as described in paragraph 30.</p>	

Paragraph 27	Proposed new text
<i>The maximum aid payable per installation for the manufacture of products within the sectors listed in Annex I must be calculated according to the following formula:</i>	<i>The maximum aid payable per installation for the manufacture of products within the sectors listed in Annex I must be calculated according to the following formula (in addition should a GVA limitation be applied aid according to paragraph 30, this should be included in the maximum aid payable)</i>

.....In this formula, A_i is the aid intensity, expressed as a fraction (e.g. 0.75);	...In this formula, A_i is the aid intensity, expressed as a fraction (e.g. 0.75);
<p>Justification:</p> <p>According to paragraph 30 the member States can limit the indirect cost further than 75%, therefore paragraph 27 should be amended to take into account any aid as described in paragraph 30.</p> <p>The factor is proposed to 75% therefore, to avoid confusion e.g should be deleted</p>	

A further description and justification for the targeted aid methodology and limitation of exposure of beneficiaries to indirect costs as a function of the GVA, is described in Annex

B. Emission passthrough factors and geographical areas

We suggest the following changes

Paragraph 14.10	Proposed new text
<p><i>'CO2 emission factor', in tCO2/MWh, means the weighted average of the CO2 intensity of electricity produced from fossil fuels in different geographic areas. The weight shall reflect the production mix of the fossil fuels in the given geographic area. The CO2 factor is the result of the division of the CO2 equivalent emission data of the energy industry divided by the gross electricity generation based on fossil fuels in TWh. For the purposes of these Guidelines, the areas are defined as geographic zones (a) which consist of submarkets coupled through power exchanges, or (b) within which no declared congestion exists and, in both cases, hourly day-ahead power exchange prices within the zones showing price divergence in euros (using daily ECB exchange rates) of maximum 1 % in significant number of all hours in a year. Such regional differentiation reflects the significance of fossil fuel plants for the final price set on the wholesale market and their role as marginal plants in the merit order. The mere fact that electricity is traded between two Member States does not automatically mean that they</i></p>	<p><i>'CO2 emission factor', in tCO2/MWh, means the impact of CO2 emission costs on power prices in each market and reflects the price-setting technology. In areas where the actual pass-through factor comes from price influence from connected areas and not only from thermal generation within the area, it can be defined by using additional analysis based on electricity markets models in areas where the actual pass-through factor comes mainly from thermal generation within the area then CO2 emission factor, in tCO2/MWh, means the weighted average of the CO2 intensity of electricity produced from fossil fuels in different geographic areas. The weight shall reflect the production mix of the fossil fuels in the given geographic area. The CO2 factor is the result of the division of the CO2 equivalent emission data of the energy industry divided by the gross electricity generation based on fossil fuels in TWh. For the purposes of these Guidelines, the areas are defined as geographic zones (a) which consist of submarkets coupled through power exchanges, or (b) within which no declared</i></p>

constitute a supranational region. Given the lack of relevant data at sub-national level, the geographic areas comprise the entire territory of one or more Member States. On this basis, the following geographic areas can be identified: Nordic (Sweden and Finland), Baltic (Lithuania, Latvia and Estonia), Iberia (Portugal and Spain), Czechia and Slovakia (Czechia and Slovakia) and all other Member States separately. The corresponding maximum regional CO2 factors are listed in Annex III. In order to ensure equal treatment of sources of electricity and avoid possible abuses, the same CO2 emission factor applies to all sources of electricity supply (auto generation, electricity supply contracts or grid supply) and to all aid beneficiaries in the Member State concerned;

congestion exists and, in both cases, **where the hourly day-ahead power exchange prices within the zones showing price divergence in euros (using daily ECB exchange rates) of ~~maximum 1 %~~ in significant number of all hours in a year, or c) for current regions CWE and Nordic, where short term limitations on interconnectors resulting in larger price differences and calculations of the covariances between areas is analyzed.** Such regional differentiation reflects the significance of fossil fuel plants **and for CWE and Nordic areas also reflects the impact from abroad**, for the final price set on the wholesale market and their role as marginal plants in the merit order. The mere fact that electricity is traded between two Member States does not automatically mean that they constitute a supranational region. ~~Given the lack of relevant data at sub-national level,~~ the geographic areas comprise the entire territory of one or more Member States. On this basis, the following geographic areas can be identified: Nordic **(Norway, Denmark, Sweden and Finland), Central-West Europe (Austria, Belgium, Luxembourg, France, Germany and Netherlands),** Baltic (Lithuania, Latvia and Estonia), Iberia (Portugal and Spain), Czechia and Slovakia (Czechia and Slovakia) and all other Member States separately. The corresponding maximum regional CO2 factors are listed in Annex III **or factors decided by using additional analysis based on electricity markets models on request from Member States and approved by the Commission.** In order to ensure equal treatment of sources of electricity and avoid possible abuses, the same CO2 emission factor applies to all sources of electricity supply (auto generation, electricity supply contracts or grid supply) and to all aid beneficiaries in the Member State concerned;

Justification: See the attached memo for mor details.

C. Conditionality

We suggest the following changes

Paragraph 54	Proposed new text
<p><i>Member States also commit to monitoring that beneficiaries covered by the obligation to conduct an energy audit under Article 8(4) of the Energy Efficiency Directive will:</i></p> <p>(a) ...</p> <p>(b) <i>reduce the carbon footprint of their electricity consumption, for example, through installing an on-site renewable energy generation facility (covering at least 50% of their electricity needs), through a carbon-free power purchase agreement; or alternatively</i></p> <p>(c) <i>invest a significant share of at least 80% of the aid amount in projects that lead to substantial reductions of the installation's greenhouse gas emissions and well below the applicable benchmark used for free allocation in the EU Emissions Trading System.</i></p>	<p><i>Member States also commit to monitoring that beneficiaries covered by the obligation to conduct an energy audit under Article 8(4) of the Energy Efficiency Directive will:</i></p> <p>(a) ...</p> <p>(b) <i>reduce the carbon footprint of their electricity consumption, for example, through installing an on-site renewable energy generation facility (covering at least 50% of their electricity needs), through a carbon-free power purchase agreement; or alternatively</i></p> <p>(e) <i>invest a significant share of at least 80% of the aid amount in projects that lead to substantial reductions of the installation's greenhouse gas emissions and well below the applicable benchmark used for free allocation in the EU Emissions Trading System.</i></p>
<p>Justification</p> <p>a) Onsite renewable energy generation: Given the huge amounts of electricity that are needed to produce primary zinc, stipulating that 50% of this energy should come through "on-site renewable energy generation facility" is not even technically feasible (placing a wind park within the site to cover 50% of energy needs would demand a huge, unrealistic amount of space). Non-ferrous metals have signed several large PPAs with wind energy providers in recent years⁸, but the investments in wind parks themselves should be done where there is space available for economic investments and the wind resources are readily available, not within industry sites.</p> <p>b) Linking with direct emissions (80%share): The objective of indirects compensation is to reduce the risk of carbon leakage due to the increased electricity prices brought about by the EU ETS. Requesting using the major part of compensation to investments is not in line with the objective to reduce risk of carbon leakage risk. Furthermore, using a major part, up to 80% of indirects compensation to address direct emissions, is not in line with this objective and would have the opposite effect. In addition, requesting that electro-intensive industries use 80% of the electricity price compensation to address direct emissions may not be possible and not in line with the stated intentions of operating aid. Finally, electro-intensive industries have a major part of their investments and challenges linked to energy efficiency and a lower share of costs linked to direct emissions. To give a concrete example, having fully electrified its processes over the past 20-30 years, primary zinc refinery is now fully electrified with 99% of its emissions and only 1% of its emissions direct. Suggest that</p>	

⁸ For more information on the corporate sourcing of intermittent renewable electricity in the non-ferrous metals sector, please see the following link <https://www.ceps.eu/wp-content/uploads/2018/12/Eurometaux%20presentation%20RES%20Corporate%20Sourcing%20CEPS%2029.01.2019.pdf>

a zinc refinery should invest 80% of the compensation it receives for indirect carbon costs to address its negligible 1% direct emissions would be nonsensical. In addition, it would give the wrong message on encouraging industrial electrification.

D. Benchmarks

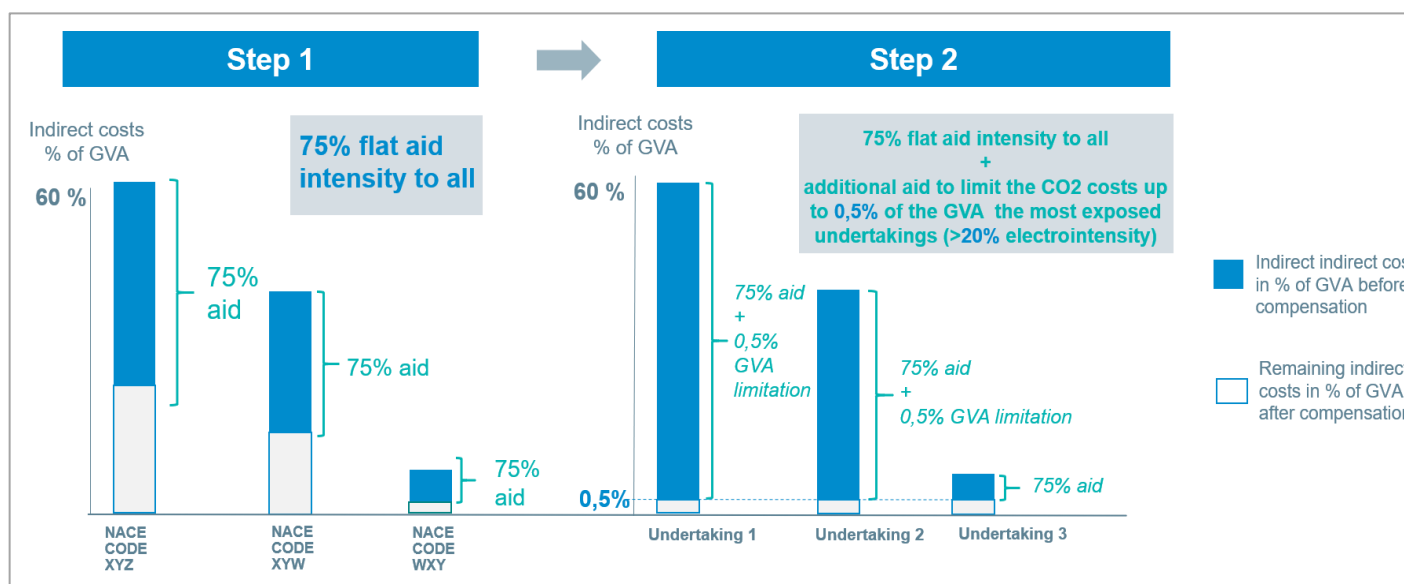
We suggest the following text:

Paragraph 14.13	Proposed new text
<p>(13) ‘electricity consumption efficiency benchmark’, in MWh/tonne of output and defined at Prodcom 8 level⁹, means the product-specific electricity consumption per tonne of output achieved by the most electricity-efficient methods of production for the product considered. The electricity consumption efficiency benchmark update shall be consistent with Article 10a(2) of the EU ETS Directive. For products within the eligible sectors for which fuel and electricity exchangeability has been established in section 2 of Annex I to Commission Delegated Regulation (EU) 2019/331¹⁰, the definition of electricity consumption efficiency benchmarks is made within the same system boundaries, taking into account only the share of electricity for the determination of the aid amount. The corresponding electricity consumption benchmarks for products covered by eligible sectors are listed in Annex II to these Guidelines;</p>	<p>(13) ‘electricity consumption efficiency benchmark’, in MWh/tonne of output and defined at Prodcom 8 level⁹, means the product-specific electricity consumption per tonne of output achieved by the most electricity-efficient methods of production for the product considered. The electricity consumption efficiency benchmark update shall be consistent with Article 10a(2) of the EU ETS Directive. For products within the eligible sectors for which fuel and electricity exchangeability has been established in section 2 of Annex I to Commission Delegated Regulation (EU) 2019/331¹⁰, the definition of electricity consumption efficiency benchmarks is made within the same system boundaries, taking into account only the share of electricity for the determination of the aid amount. The corresponding electricity consumption benchmarks for products covered by eligible sectors are listed in Annex II to these Guidelines;</p>
<p>Justification</p> <p>Overall, benchmarks are the best methodology to incentivise energy efficiency and emissions reduction. We believe that benchmarks should be based on actual data for 10% best performers and thus, disagree with part of the methodology to decide the benchmark.</p> <p>We disagree that benchmarks should be linked to the ETS article 10a (2) as an arbitrary yearly decrease will not be based on real data.</p> <p>Elsewhere, we support the continuation of current definitions at Prodcom 8 level. We would recommend that the European Commission, working in tandem with a consultancy company, collect electricity data at Prodcom 8 level with the involvement of commodity associations. This would be a similar exercise to the process run in 2011/2012.</p>	

Annex

1. GVA Limitation: Visual representation of the proposed methodology

Calculation indirect costs proposed methodology to obtain approximately level playing field



This would lead to more level playing field between sectors and undertakings. Maximum indirect cost in percentage of GVA is 0, 5 % up to benchmark level (the situation for industries exposed to direct emission is 0,0% direct emission cost in percentage of GVA). However, the most electro intensive industries, will, due to the high intensity, still face the highest indirect cost per ton produced.

Furthermore, all sectors will be treated equally (75%) and undertakings within all sectors with electro intensity above 20% will be treated equally even if the aid intensity might vary (always below 100%).

2. Economic need for compensation and carbon leakage risk

Prices of products from energy intensive industries are generally set in a global market. Therefore, cost increases in Europe cannot be transferred into customer prices without losing significant market share, thus creating a competitive disadvantage compared to producers outside Europe.

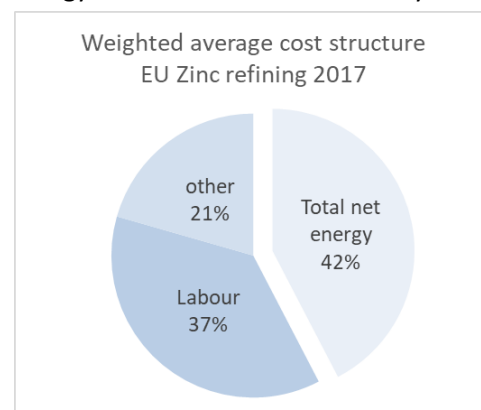
The power prices are increased by the EU ETS prices and the effect varies between regions in Europe. In the Central West Europe is 0,76 t CO₂ per MWh, this means that if the allowance price is 30 € per tonne CO₂, electricity prices will increase by 23 € per MWh. The market price effect deviates from the average emission intensity as a result of the European electricity market design with a marginal price setting method (merit order).

Zinc refining

Primary zinc production in Europe has almost completely switched its energy from fossil fuel to electricity over the past decennia. Therefore, it has become now a very electricity intensive sector as compared to other industries.

Any increase in electricity cost will hit the operational margins in zinc refining industry substantially. Energy consumption accounts for 42% of production cost. Over 95% of the energy use is electric power.

- Power costs in Europe are significantly higher compared to other regions in the world with zinc refining capacity
- Global Zinc price is set on daily at the London Metal Exchange.
- Electricity is produced locally
- Zinc smelters cannot pass on higher regional production costs

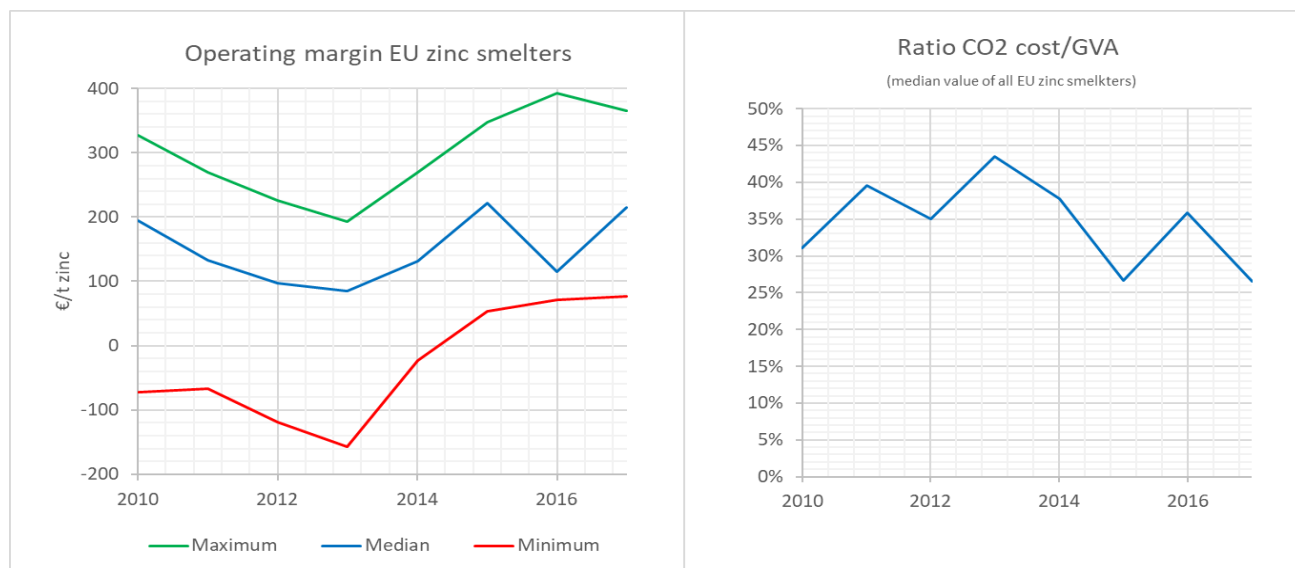


Source: Wood-Mackenzie 2018

Power costs for primary smelters in EU accounts on average for about 40% of conversion costs. Therefore, electricity is a substantial cost element, with potential large impact on the operational margin.

The enclosed figure (drawn from data reported by Wood-Mackenzie) shows that in the period 2010-2017 historic profit margins of EU zinc smelters have been in the range of -100 €/t <=> +300 €/t Zinc.

If the CO₂ price in this period had been 25 Euro higher, then the energy cost would have been about 80 €/t Zinc more expensive, and the many plants would have seen profits cuts with 50% to 100% in most years.



Source: Wood-Mackenzie 2018

Assuming a carbon cost of 30 €/t CO₂ and current emission factor (0,76 tCO₂/MWh), an average zinc refinery plant in Europe, would be exposed to an indirect cost that is higher than 35% of GVA. Even when receiving the maximum compensation of 75%, the residual indirect cost would be on average more than 10% of GVA, which is above today's threshold of 5% to become eligible for compensation. Obviously, with increasing CO₂ prices as expected in Phase IV, the current compensation schemes will not offer sufficient protection for the very electricity intensive zinc refining industry in Europe.

Indirect cost

Logically indirect cost is a major factor for the most electro intensive industries as zinc electrorefining, therefore, adequate compensation is of high importance to minimize the risk of carbon leakage. However, it is recognized that the measures for carbon leakage protection for indirect costs have not worked well for certain electro intensive industries, especially impacted by indirect costs: [...] *Based on the current EU approach, only partial and regressive compensation is available and it is left at the discretion of Member States. This is an unpredictable model, and creates the potential for significant, and uneven costs for best performers. More electricity intensive sectors, such as **primary zinc electrorefining**, are however impacted by high indirect costs.*

Situation with our proposal of using indirect cost in % of GVA as a parameter in the compensation formula.

5% indirect cost GVA (and trade intensity) is the threshold for a sector to become eligible for aid, and certain sector are eligible on indirect cost on 2,2 % of GVA. However, these parameters serve only as a filter, we propose to a method that would better cater for those undertakings within sectors who are eligible for compensation, for which indirects costs are particularly burdensome.

For undertaking with 2,2% indirect cost of GVA the cost after compensation will be about 0,5% of GVA.

For a zinc electrorefining undertaking in Europe operating benchmark performance, assuming 30 €/tCO₂ and current emission factor (0,76 tCO₂/MWh), would have indirect costs of GVA higher than 32% and even with 75% compensation, the indirect cost would be more than 8 % of GVA, which is more than 50% above the threshold to become eligible in the first place. Even with a further decarbonisation, the indirect cost after compensation would be substantially higher than the threshold to become eligible for compensation.

ABOUT the International Zinc Association

The international Zinc association (IZA) represents the zinc industry globally, to sustainably grow markets and maintain the industry's license to operate through effectively managed initiatives in research and development, technology transfer, and communication of the value of zinc.

IZA coordinates initiatives that are best done collectively, undertaken either directly or through involvement and support of customer groups and related stakeholders on the local, regional, and global levels.

Contact: Mik Gilles, Manager European Affairs, | mgilles@zinc.org | +32 2 776 0096