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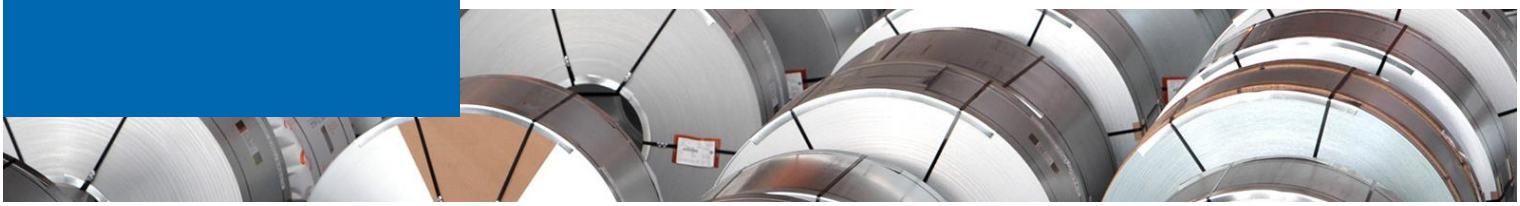
The European Steel Association

CONTRIBUTION TO THE PUBLIC CONSULTATION ON

COMPENSATION OF INDIRECT CARBON COSTS IN THE POST 2020 EU ETS



OUR KEY MESSAGES

- Several elements of the draft text (e.g. state aid intensity limited at 75%, exclusion of sectors in the steel value chain such as industrial gases, mining of iron ores and tubes) undermine the effectiveness of the provisions to prevent the risk of carbon leakage because they result in a very low level of compensation (up to less than 50% of the actual indirect costs).
- If the default aid intensity is not increased to **100% of the benchmark**, the possibility for member states to grant compensation beyond 75% is an important step to reduce indirect costs to eligible sectors.
- The additional compensation should be set so that indirect costs are capped at **0.5% of the GVA and should be open to all eligible sectors** and not restricted only to some of them. Furthermore, it should be accessible to both the electric arc furnace (EAF), which uses large amount of electricity to melt and recycle scrap, and the integrated route, which consumes electricity produced from the combustion of recovered waste gases generated unavoidably by the steel making process.
- Similarly to the allocation of free allowances to the heat consumer under the rules on free allocation for the direct emissions, the consumption of **industrial gases** (e.g. oxygen, hydrogen, etc.) should also be considered as eligible for financial compensation when it occurs in a sector that is exposed to indirect carbon leakage such as steel and **state aid should be granted to the exposed sector.**
- Sectors belonging to the steel value chain (**mining of iron ores and seamless pipes**) **need to remain eligible** for compensation since they are already recognised at risk of carbon leakage in phase 3 and they contribute to the carbon leakage exposure of the steel industry.
- The proposal of **splitting existing regions contradicts the political objective of linking more the national energy markets**. 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. Hence, the **existing regional areas should be maintained**.
- **Compensation should not be made conditional** because it does not distort incentives for energy efficiency investments, **since it is based already on very strict benchmarks**. If now state aid is made conditional to additional measures to be taken by the company, de facto it is not anymore a (partial) reimbursement of incurred costs as it requires additional costs to the company.
- The **fall-back benchmark** (80% of reference electricity consumption) **should not be reduced** further, since it entails already a major reduction of aid.
- The steel industry (NACE code 2410) is recognised as eligible for indirect costs compensation in the draft Guidelines but the consultants' study classifies the sector only at medium risk. Even though there is no different treatment, we are providing evidence which indicates that **steel is at very high risk of carbon leakage.**

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Introduction

The EU ETS Guidelines are an essential element of the legal framework that aims at preventing the risk of carbon leakage. In line with the spirit and wording of the EU ETS Directive, the ultimate objective of both free allocation and indirect costs compensation is to avoid undue costs at the level of best 10% performers in the EU. The Guidelines should be developed and implemented in all member states in view of reaching that objective. This is even more urgent now due to the higher carbon price compared to phase 3 and in view of the development and uptake of low carbon technologies that will increase substantially the (direct and/or indirect) electricity consumption in the steel sector.

Indicative impact assessment of the draft Guidelines on the steel sector

The steel industry (NACE code 2410) is recognised at risk of carbon leakage in the draft Guidelines and hence is eligible for compensation of indirect costs. Yet, several elements of the draft text undermine significantly the effectiveness of the provisions to prevent the risk of carbon leakage because they result in a very low level of compensation when compared with the actual indirect costs of a steel site. The following indicative assessment can be provided:

- 25% shortage due to state aid intensity capped at 75% (if the sector is excluded from the possibility of additional aid beyond 75%);
- 20% shortage due to benchmark (at least for the fall-back benchmark);
- 20-25% shortage due to exclusion of sub-sectors in the steel value chain (at least in the BF/BOF route) such as industrial gases (NACE code 2011) and mining of iron ores/sintering (NACE 0710).

As a result of the restrictions mentioned above, the compensation could cover even less than 50% of the actual indirect costs borne by a steel producer. Therefore, these elements of the draft Guidelines need to be improved in order to provide effective prevention of the carbon leakage risk.

Sectoral eligibility: sectors in the steel value chain (industrial gases, iron ores and tubes)

In addition to direct electricity consumption, the steel sector uses significant amounts of industrial gases (NACE code 2011) for unavoidable purposes such as oxygen which have an important electricity consumption embedded. On the basis of the data from the Best Available Techniques Reference document (BREF), the embedded electricity consumption is estimated at 24 kWh/t crude steel in the EAF route and 92 kWh/t in the BF/BOF route (which is around 20-25% of the total electricity consumption in BF/BOF route). The lack of compensation for the indirect costs linked to industrial gases further exposes the steel sector to carbon leakage risk. Therefore, similarly to the allocation of free allowances to the heat consumer under the rules on free allocation for the direct emissions, the consumption of industrial gases should also be considered as eligible for financial compensation when it occurs in a sector that is exposed to indirect carbon leakage such as steel and state aid should be granted to the exposed sector. Such treatment would be important in the context of the medium to long term transformation of the sector, whose breakthrough technologies will need large consumption of industrial gases like hydrogen.

Furthermore, it should be noted that also the NACE code 0710 (Mining of iron ores), which is eligible for financial compensation in the EU ETS phase 3, is very important for the steel sector as it is within the same value chain. Even though it has a different NACE code than steel making (NACE 2410), actually it covers the activity of sintering of iron ores that is performed in the integrated steel sites. Since it contributes to the overall exposure to the indirect carbon leakage risk of the steel industry, it is important that it remains eligible for the post 2020 period.

Finally, in the EU ETS phase 3 seamless steel pipes were also included in the list of eligible sectors as they are closely linked to the steel sector because they represent a very electro-intensive process similar to other hot/cold rolling processes. Therefore, they should remain eligible.

Default aid intensity and possibility for additional aid

The steel sector is highly exposed to carbon leakage risk linked to indirect costs and is unable to pass through unilateral regulatory costs without genuine risk of losing market shares. This risk is even more relevant in the context of much higher carbon prices compared to the ones experienced until 2017. Furthermore, affordable and competitive electricity prices are essential to facilitate the transition to breakthrough technologies which require even larger amounts of electricity. Therefore, it is important to set the aid intensity at 100% of the benchmark; any reduction of the aid intensity below the benchmarks undermine the effectiveness of the carbon leakage provisions as long as there is no comparable climate legislation in competing countries.

Even 100% aid intensity would not mean full compensation of indirect costs, as it would still be capped by the very strict benchmarks. For instance, in fall back benchmarks, it would still be reduced by 20% compared to the baseline electricity consumption; i.e. with the current 75% aid intensity level fixed in 2020, the installations in fall back may receive compensation only for 60% of the indirect costs (75% of 80%). This is far below the maximum aid intensity level according to EU state aid rules.

If the default aid intensity is not increased to 100% of the benchmark, introducing the possibility for member states to grant additional compensation beyond the default value is an important step to reduce indirect costs to eligible sectors. The additional compensation should be set so that indirect costs are capped at 0.5% of the GVA. This possibility should be open to all eligible sectors and not restricted only to some of them.

Furthermore, it should be accessible to both the electric arc furnace (EAF), which has very high electro-intensity because it uses large amount of electricity to melt and recycle scrap, and the integrated route, which consumes electricity produced from the combustion of recovered waste gases generated unavoidably by the steel making process. Financial compensation for this case is explicitly mentioned in recital 13 of the post 2020 EU ETS Directive in order to preserve the incentive to recover waste gases, since free allocation is granted only partially for waste gases' emissions. Therefore, if the option of granting additional aid beyond 75% is retained, it should consider not only the electro-intensity, but also the actual carbon leakage risk and the environmental purpose of the state aid (i.e. promoting the recovery of waste gases).

Finally, it should be noted that undertaking specific assessment need to take into account the actual specificities of the sites. The GVA of companies is highly dependent on their structure, including the configuration of the production steps where the higher share of value added is generated. Hence, a site assessment would also be necessary where appropriate. Furthermore, company-specific assessment on electricity consumption should not lead to unintended results in case energy efficiency measures that have been already implemented.

Conditionality

Compensation should not be made conditional on additional requirements. In fact, this kind of state aid aims at reimbursing partially the energy consuming sectors for the indirect costs passed on in the energy bill. If now state aid is made conditional to additional measures to be taken by the company (i.e. investments in energy efficiency or emission reductions and carbon free power purchase agreement,) de facto it is not anymore a (partial) reimbursement of incurred costs since it requires additional expenditure to the company. As the eligible sectors are acknowledged as being at risk of carbon leakage (on the basis of market characteristics, profit margins and abatement potential), the missed reimbursement would create the conditions for the materialisation of such risk, leading to an increase in global emissions.

Energy efficiency improvements are a must for industries with high energy costs in order to remain competitive. Compensation of indirect costs does not distort incentives for energy efficiency investments because it is still based on very strict benchmarks reflecting the best performance in the sector (and actually the state aid intensity does not even cover the full benchmark but only 75%

of it). Furthermore, the "incentive effect" is also preserved by the fact that the benchmarks will be updated during the phase 4, so that companies have further interest in improving performance, where technically possible.

Furthermore, the proposed conditionality requirements are actually linked to the implementation and enforcement of other pieces of legislation (notably the Energy Efficiency Directive and the Renewable Energy Directive). However, member states retain the possibility of adopting different instruments to promote energy efficiency and renewables in order to achieve the targets set in such legislation. Therefore, the conditionality requirements would overlap and possibly collide with different national measures.

Finally, the three proposed conditionality requirements present several specific limitations:

- The energy efficiency investments with a payback period of 5 years do not reflect the reality of business decisions in the steel sector, which are bound to a significantly shorter period. Furthermore, the draft text does not take into account early actions such as recent energy efficiency investments.
- The requirement to install an onsite renewable energy generation facility covering at least 50% of the electricity needs does not match with the very large energy consumption of industrial sites and the physical limits of such on-site generation. As an indicative example, an average electric arc furnace producing 700,000 tonnes of steel per year consumes around 450,000 MWh of electricity and an average integrated site producing 4 million tonnes of steel per year consumes around 1,800,000 MWh. Assuming an on-shore wind turbine with 3 MW installed capacity operating 2,000 full load hours/year, the electric arc furnace would need around 40 turbines to cover half of its electricity needs and the integrated site around 150 turbines. Considering the land requirements and also the regulatory restrictions to the instalment of such turbines, this conditionality requirement is not technically nor financially feasible, hence it cannot be achieved realistically by the eligible sectors.
- The requirement to invest at least 80% of the received state aid into investments to reduce direct emissions of the installation is not consistent with the scope of the Guidelines which are targeting indirect costs.

Emission factor and regional areas

As a matter of principle, the CO_2 emission factor must reflect the full indirect CO_2 burden, i.e. the actual CO_2 cost passed through into prices. The approach of using historical empirical data on the fossil emission factor in the relevant regional market should be maintained in order to ensure a consistent and stable framework. The calculation of this factor should be based on reliable and transparent sources in order to reflect the real costs faced by the industry. The proposal of splitting existing regions in more areas does not provide details on the underlying evidence and contradicts the political objective of linking more the national energy markets. 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. Hence, the existing regional areas should be maintained.

Update of the fall-back benchmark

The draft guidelines do not indicate the default value of the fall-back benchmark. In phase 3, this was 80% of the reference electricity consumption. Since this represents a major reduction of aid, it should not be reduced further, otherwise the state aid would be insufficient to achieve its objective of avoiding the risk of carbon leakage. It should also be noted that the reference fall back benchmark in the free allocation rules for direct emissions is the process emissions benchmark, which is much higher than the electricity fall back benchmark (97% of historical process emissions) and most importantly has not been further reduced between phase 3 and phase 4.