

Participation on the public consultation on Revision State Aids Guidelines for Emission Trading on electricity

UNESID

UNESID is representing the entire steel production and main processing in Spain, one of the main steel producing countries in EU. Currently, Spain is suffering one of the highest FINAL electricity prices (internal Iberian electricity -marginal pricing which allows the externalization of every charge) and other additional structural charges – related to the network, renewable energies, etc. – among the highest in EU for Electricity Intensive consumers (very high Voltage connection and very high consumption > 40 GWh/year).

Unfair State aid consideration

To get started, the compensation covered by this guidelines **should NOT be considered as a State Aid**, as is a partial compensation of the windfall profits of the electricity generation sector, which is transferring and amplifying all the electricity CO₂ cost due to the Emission Trading Scheme to all the electricity consumers. Therefore, they are making a business out of it. In a further step, part of these increased incomes is returned to some the most exposed sectors to both electricity cost and international competition by the Member States which decide to use this “State Aid” scheme. It is fair to say that the Member States are receiving indirect extra incomes by the CO₂ auction, by the Electricity companies corporate profit taxation, and from a higher income from the energy direct taxation, as the electricity is more expensive. This is the reason why the emission trading explicitly state that 25% of the auction incomes could be used to indirect compensation. The Spanish government additionally tried a direct taxation on the generation but, again, it was is passed through to the final consumer.

The **State Aid denomination** generates a lot of problems for its application at national level. At least in Spain, it falls under the procedure of a **public grant**, which implies an extreme rigid application procedure, full of additional almost useless administrative requests.

Need for harmonization on its application

UNESID does believe that **these compensation measures should have been agreed and harmonized along the entire European Union**. It will provide a protection layer against a higher divergence in the European internal market. It is a full consequence of the ETS system and somehow, it has a close relation with the ETS allocation process (kind of indirect free allocation, for those sectors extremely exposed to the electricity price and the international competition). The lack of agreement in these kind of tools show up the legislative debility of European Union and it increase the differences among companies based on different member states based on aspects which were agreed at EU level.

Most of the European member states hold secondary procedures that imply the reduction of final prices for Electricity Intensive Industries (special long term agreements by a pool of different tools which affect either the price of the energy and/or to the additional cost that need to be afforded). They rank from a partially state owned company, reduced taxations, cost rebates, renewable schemes exemptions, etc.

Steel is a high-risk sector

UNESID disagrees with the conclusions of the Study performed by the Consultancy, which states that the Steel Sectors is a medium to high risk sector based on the exposition to the cost of the electricity. Steel, as most of the metals, is one of the most globalized material in the world and with processing cost extremely influenced by the cost of the energy.

The Consultant's report does not show up any appreciable difference between the Steel sector and other sectors considered as high-risk ones. Despite of that, the assessment is carried out without considering the special situation the European Steel industry is going by in the last two years (March 2018). Since June 2018, the sector has in place some safeguards countermeasures as a reaction to the importing safeguards measures of 25% imposed by the North American Administration.

Additional points UNESID consider fundamental for the revision of the guidelines:

Higher level of compensation to the most affected parties

UNESID does agree with the *possibility* that, for those companies in sectors with a high level of exposition to the electricity cost in relation with the GVA, the compensation system should allow a higher level of compensation, until the indirect cost only affect a certain level in relation with the Global Value Added (GVA).

Nevertheless, this option should be an **obligation** instead a possibility.

UNESID support to set up a threshold of an electricity cost higher than a 15-20% on GVA with a capped indirect cost exposition of a maximum 0,5% of the GVA.

This higher compensation should be opened to whatever installation within the Annex I which reach such a level of exposition additionally not only to a limited number of sectors within such an Annex I. The assessment could be carried out to either installation level or company level.

As a future option, the European Policies should consider their assessment which relates to Climate Change Policies, Energy Cost Exposition, Border adjustment, etc based on Gross Operating Surplus (GOS) instead of Gross Value Added (GVA). GVA Roughly speaking GOS is GVA less labour cost, and therefore an evaluation based on GVA penalise the expenditure labour cost to be eligible when used as a denominator to compare whatever CO₂ cost intensity, electricity cost intensity, etc.

Avoidance the current double penalisation: Maximum compensation x either Benchmarking or fall-back compensation

It is not fair that the compensation system applies simultaneity both; a limit in the maximum compensation which multiplies times an electricity benchmark or a fall-back compensation. As a starting point, it should not be forgotten that the compensation is addressing sectors with a very high electricity cost, and a very limited capacity of passing them to the downstream consumers due to the international competition.

By applying just one of them, the intention of promoting the efficiency is highly incentivized.

1) Benchmarking with an actual reference for efficient electricity consumptions.

It does not make sense to combine a maximum compensation (eligibility) level for those consumptions that already have a specific Benchmarking which already include the electricity on it.

This is the case of the steel sector Benchmarking:

1. EAF benchmark, either for carbon or high alloy and fine steels: The compensation includes a reference to the optimum electricity consumption, based on both direct and indirect emissions, as there is an exchangeability of sources of energy.
2. Basic Oxygen Converter electricity consumption benchmark: There is a reference of an optimum electricity consumption for this process.

There is no justification for the multiplication both reduction factors. The objective is to promote the efficiency and not to penalise it without any further explanation. Additionally, these two benchmarking are evolving based on the Emission Trading Directive.

2) Electricity fall-back consumption. Extreme impact on integrated route.

By not having a representative product benchmark, steel processing is suffering from an unjustified penalization. This is of almost importance for the integrated route where the consumption done in the blast furnace perimeter and in the downstream processing of the steel semiproducts account for the majority of the electricity consumption. Therefore, this route would receive lower level of compensation than other eligible sectors fitted with product benchmarks that cover most of the electricity consumed in such industries.

Opposite to an Electric Arc Furnace plant, where the benchmark account for around 85% of the entire electricity consumption, the perimeter of the Basic oxygen steel benchmark (0,036 MWh/t product), is just covering around 15% of the electricity consumed in an integrated steel factory. As consequence, majority of the consumption is exposed to the fall-back electricity compensation, penalized with a deficit of 40% on compensation (maximum compensation of 60% (75% x 80%) independently of the real efficiency of each factory. This criterion makes steel sector been discriminated versus other sectors, minimising to the potential compensation that can be obtained by the integrated route.

UNESID thinks that for phase IV, there is room for developing a set of benchmarks covering most of the electricity consumption of the steel processing for the integrated route.

Otherwise, the 80% coefficient applied in current fallback approach should be reconsidered, easing the current burden of the steel processing, as the main electricity consumption for the integrated route.

Evolution of the EAF benchmarking

The benchmarking evolution should assess the actual technological improvement of each technology. In the case of EAF benchmarking evolution, as this benchmark includes both direct and indirect emissions, as the furnace combine electricity and thermal energy. The indirect emissions should consider the actual evolution of the electricity consumption within the benchmarks curves (the same grid emission factor which was used for the previous assessment (0,465 tCO₂/MWh). This way it is comparing apples with apples in a homogenous way, by considering simultaneously the evolution of direct and electricity consumption (indirect emissions).

Additionally, it is important to consider that the current EAF benchmarking did not include the chemical energy (use of oxycombustion/air enricher) which also occurs in the EAF, at the same time. This energy vector includes also indirect emissions by consuming industrial gases, as commented herein below.

By doing so, the inter-comparison of the former values with the new ones allows to define the actual annual reduction rate (ARR) of the EAF technology. Once the ARR is calculated, the allocation or the compensation should consider the evolution with this ARR and then using the updated emission factor for the CO₂ actual allocation (0,376 t CO₂/MWh), but consider, as stated before, the actual technological evolution. This ARR also has influence in the electricity compensation.

In case a newer emission factor is applied (0,376 t CO₂/MWh) to calculate the evolution of the benchmark, it just will force a higher annual reduction rate based on the grid evolution, a parameter 100% out of the control of the EAFs steel producers. This is legally against the objective of the Benchmarking evolution which is supposed to reflect the technical evolution.

In case of application of the network evolution instead technical evolution, it disincentives the use of electricity for recycling steel production alone or in combination of pre-reduced raw materials, the guidelines would disincentive it.

Conditionality: Contrary to the objective of the compensation

The proposed conditionality goes exactly against the objective of the proposal, as these are costs that have been paid in advance from the eligible companies to the electricity producers, in a much higher quantity than the actual CO₂ emissions paid by those ones.

Therefore, by giving some objectives of most of the compensation received by each plant, the system loses its objective of recovering part of the profitability which these windfall profit paid by the consumer to the electricity utility companies.

Out of the three proposals analysed, two of them do not have any technical sense at all. Reducing the carbon footprint by installing renewables in the installation is just a not intelligent measure. Buying electricity from renewable through PPA scheme forces the price of these up since it generates a captive market.

Invest 80% of the compensation in measures which bring the company in a value below the Benchmark is just a nonsense. If it was easy, all the companies would have reduce the benchmark in a dramatically way during the last 15 years. This is not the case at all. Additionally, as we are considering electricity consumption instead of direct emissions, which mix up concepts.

The only option, is the one which refers to the “energy efficiency measures”. It should refer to a maximum of three years or return on investment. In the current situation, most of the investments are evaluated against such a payback time or even less. Nevertheless the most relevant measures are already carried out.

Inclusion of the Industrial Gases Consumption within the scope of the compensation for eligible sectors

The Steel sector is an intensive Industrial Gases consumer, which implies an intensive indirect consumption of electricity. This cost is transferred to the steel sector by the Industrial Gases producers.

An efficient and justified way of including its consumption within the compensation perimeter is by assuming an efficient value for the electricity consumed to produce each industrial gas. For example, in the case of Oxygen, it could be assumed a compensation of 0,35 kWh/Nm³ times the actual gas consumption of each installation eligible for compensation.

This will became even more dramatic if sifting to and electricity and/or Hydrogen economy.

Electricity regional Markets. No further aggregation

UNESID supports the disaggregation of the electricity markets in the way are been proposed in the draft guideline. The integration of several countries in one market cannot be reasonably justified. The emission profiles and the marginal CO₂ emission of some countries is very low, and there is very low charge of CO₂ in the electricity prices of the companies there. Additionally, there are long term contracts based on non-emitting and non-renewable electricity which almost does not charge any CO₂ (not marginal prices or indexed prices). By merging those countries with other markets, they would receive a higher level of compensation which artificially would increase its competitiveness against other EU countries.

Measuring the marginal emission factor as a three years average (2017-2019)

In those countries where there is an important part of hydroelectric share in the generation, the hydrologic (rainy) variability of each year is very important in order to measure the emission factors of the grid. Therefore, it is reasonable to consider a three-year average to equalize the variability of each single year grid emission factor.

Methodology for maximum market emission factor. Need for a realistic methodology on price transferred to the costumers as a consequence of the CO₂.

Even the non-emitting sources are receiving “carbon incomes”. Therefore, the compensation should not consider the weighted average of the emitting sources of the pool of generation, but the actual marginal CO₂ emissions which match offer as all the generation profit from such an emission. It is an obligation to set up a methodology which capture the price transferred to the customers, which is much higher than the CO₂ actually emitted.

A study carried out by an independent company on Energy forecasting using artificial intelligent model, assessed with an almost 98% matching in the historical actual prices (Study: Carbon price transfer forecasting services for the MIBEL market of Spain at the long-term by Aleasoft for AEGE –Asociación de Grandes Consumidores de Energía) showed up that during the phase III the CO₂ **priced transferred to the entire Iberian electricity market was 0,80 tCO₂/MWh. 0,80 is much higher than the compensation “reference value (marginal emission)” of 0,56 tCO₂/MWh** which was tabled by the European Commission in the former version of the guidelines for the Iberian electricity market. These prices were set based on high carbon intensive generation (even in some cases the price was captured by dispatchable hydroelectric turbines which are used to offer slightly above the thermal units to maximize their profitability). These turbines use almost “0” prices to reverse pumping and storage future MWh at a maximum price, but capture 100% of the maximum CO₂ prices.

For the first part of the next IV trading period it is expected slightly above 0,60 tCO₂/MWh.

Iberian market is in practice below 5% of interconnection, therefore almost not possibility to dilute very high local prices. On the contrary, at very high level of generation in Spain (renewables), there is exportation of electricity which prevents “0” prices. When the Spanish prices are very high, Spanish customers are increasing even more the profitability of the state owned French nuclear power (84%) at a maximum prices.

Few eligible activities to be more clearly included.

The eligibility of the sectors based on the NACE code does not match the activities carried out in a steelmaking plant.

For the case of the integrated sites (Blast Furnace - Basic Oxygen Furnace route) there are additional activities intimately linked to the process. These are an integrated part of the process in most of the European Steel makers. They do have important parts of the process which are integrated on the process, although they have specific NACE codes: “mineral agglomeration” and “coke making processes”. The evaluation was driven by the stand alone installations rendered unjustified results, which damage the compensation for the integrated sites. As a matter of fact in the evaluation carried out, the Eurostat statistics integrate the activities of these internal plants when collecting data from the steel sector.

07.10 Iron ore agglomeration. Case of Sinter. UNESID consider that not being eligible for compensation makes reference to iron ore agglomeration only when such activity is “the activity” of a plant. Otherwise it would penalise an integrated part of an eligible process. The internal sinterisation plants is an intermedium

step to integrate the physical form of the iron ore and allowing to recycle a set of many internal residues with a very high concentration of iron oxide to be charged in a Blast Furnace. If such a limitation were extended to the intermedium step would increase the cost of the steelmaking process in the integrated.

19.10 Manufacture of Coke oven products. In a similar way, the internal cokemaking processes is not designed within the manufacture of coke oven products (which actually do). The main reason is to produce ironmaking coke as a reducing agent for the Blast Furnace. If there is no compensation on this process, there will be an additional cost for this part of the process.

To clarify these situation and in order to avoid any misunderstanding, these two process should be considered explicitly eligible when being an integrated part of an Iron and Steel Plant.

24.20. Tubes. The reason behind this case is a misinterpretation which mixed up seamless and welded tubes. These two processed have nothing to do among each other.

There is a misunderstanding among the downstream processing of *seamless tubes*, which is technically a hot rolling and or a cold rolling process, from the welded tubes where a steel strip is bended until the two edges can be soldered. The electricity consumption is a secondary matter within this process. In some plants they share the NACE code, being this the reason why the 24.20 was not considered exposed enough within the assessment. Nevertheless, the seamless and welded tubes do not share neither the markets, nor the international trade exposition or the affection by the electricity consumption.

Therefore, seamless tubes processing should be included regardless its NACE code is 24.10 or 24.20.