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Public Consultation Response: Review of the EU State Aid Guidelines for Climate Environment protection and Energy (CEEAG)

Eurometaux, representing the European non-ferrous metals industry, welcomes the revision of the EU State Aid Guidelines for Climate, Environment and Energy protection (CEEAG). The European Green Deal and the transition to a climate neutral economy is both an opportunity and challenge for Europe, the challenge being to ensure that climate neutrality can be achieved whilst at the same time maintaining a European industrial base. The revised CEEAG will thus have an essential role to play in ensuring that these two twin objectives can be achieved: 1) decarbonising power and 2) maintaining electro-intensive industries in Europe.

With the production of non-ferrous metals being an unavoidably electro-intensive process, competitive electricity costs are key for our industry. Indeed, electricity represents 30% to 45% of the overall operational costs for many of our installations[1] and thus, globally competitive electricity costs are one of the key localisation and investment factors in our sector. The 'Clean Planet for all' Strategy of 2018 stipulates that power can be climate neutral by 2045. As the frontrunner of industrial electrification, if Europe can decarbonize its electricity supply, while maintaining globally competitive electricity prices, the carbon footprint of Europe's NFM industry would be reduced by 81%[2]. The challenge is to ensure that electricity - both the electricity costs themselves and the system costs incurred - remains competitive and available in the quantities demanded, throughout this transition. The revised CEEAG, alongside the revised ETS Guidelines, will thus be instrumental to ensure that this challenge can be overcome. It will also be key in encouraging industrial electrification and the uptake of low carbon technologies such as hydrogen, CCS, etc.

The transition to climate neutrality is also a major opportunity for our sector. Through our products (the demand for non-ferrous metals is expected to rise exponentially in order to produce the technologies of tomorrow), processes (through demand response schemes, we contribute to balancing electricity grids, an issue that will become increasingly important as the level of variable RES generation increases) and power purchasing agreements (the non-ferrous metals sector is inherently interested in long-term electricity contracts, making us a natural ally for RES project developers) we are enablers of the transition. Indeed, climate neutrality cannot be achieved without an increased use of non-ferrous metals. We are willing to contribute to the transition. However, the related costs need to be proportionate given the high level of global competition we face.

In this document, we give our thoughts on the draft Guidelines[3]. We outline 1) positive elements of the draft Guidelines that should remain, 2) areas not covered in the Guidelines that we consider could be extended, 3) areas that should be changed in the Guidelines. We also respond to the specific questions posed in the consultation: i) whether the methodology is adequate for identifying sectors at risk of relocation and ii) what should be the cumulative level per MWh of the concerned levies that is necessary to allow reductions[4].

[1] The production of non-ferrous metals such as aluminium, copper, zinc, nickel and silicon is extremely electro-intensive. To take the case of primary aluminium as an example, as indicated in the Commission's recently published Energy Prices and Costs report 2018 (here), the average share of electricity costs in total production costs is approximately 38% (ranging from 30% to 45% depending on the power prices and the energy mix of the country/region where the smelter operates).

[2] IES/VUB 2019. Metals in a Climate Neutral Europe. Accessible here.

[3] DG COMP June 2021. Draft CEEAG Guidelines. Accessible here

[4] Our previous consultation response and attached memo can be accessed here

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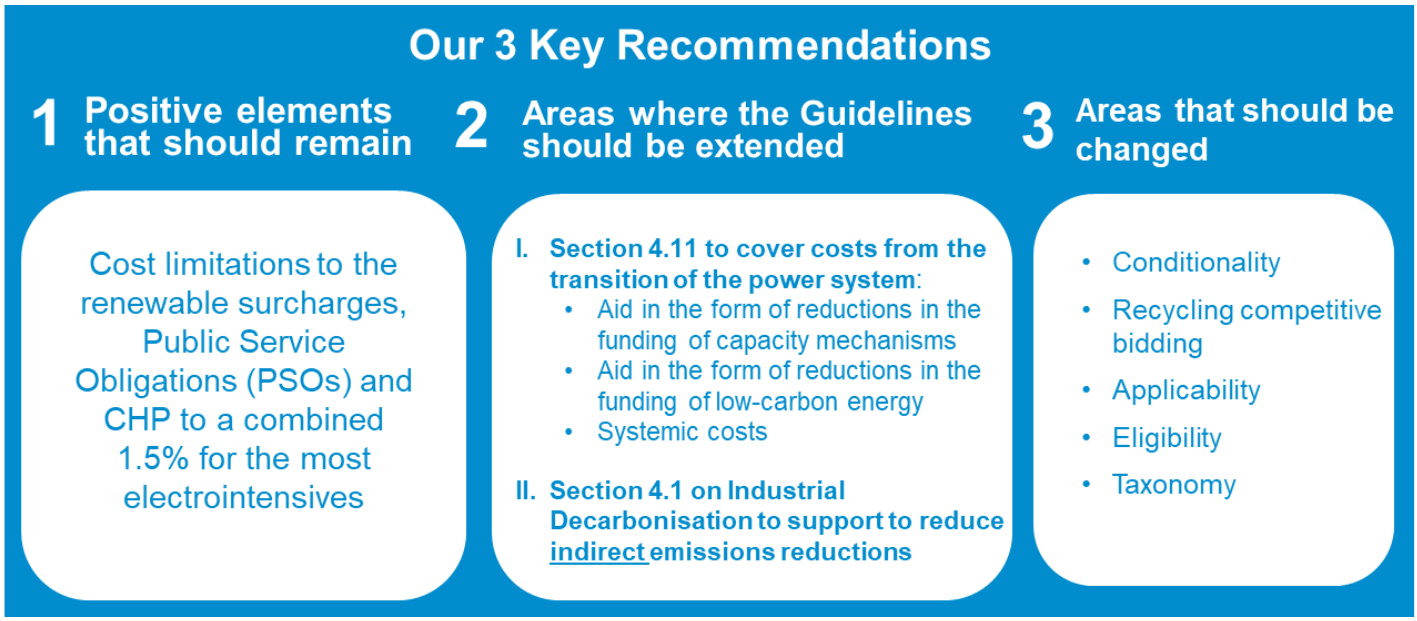
Eurometaux Position on some of the Key Issues in the Revision



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1. Positive Elements which should remain in the updated Guidelines

i. Cost reductions for electro-intensive industries from renewables surcharges, PSOs and CHP charges

The importance of competitive power costs for non-ferrous metals producers

In two detailed recent reports, the 'Industrial Transformation Masterplan[5]' and 'Metals for a Climate neutral Europe[6]', the access of industry to abundant, competitively priced energy was identified as *the* most important framework condition for the industrial transition to climate neutrality. The "Clean Planet for all' Strategy of 2018 stipulates that power can be climate neutral by 2045, with intermittent renewables, wind and solar, representing 85% of European electricity[7]. With this decarbonisation of power and the penetration of variable renewable electricity, the EEAG will have a crucial role to play to ensure electricity remains available in sufficient volumes and at globally competitive rates.

Electricity tends to represent around 40% of the production costs of primary metal producers and thus, non-ferrous metals producers are particularly sensitive to any increase in the costs of electricity[8]. High electricity costs act as a disincentive to investment in the production of non-ferrous metals in Europe and have already led to carbon and investment leakage in our sector[9]. The reality is exacerbated by the fact that non-ferrous metals prices are set in global markets (most notably the London Metals Exchange) and any cost increases brought about by regulatory measures cannot be passed on to consumers without losing significant market share to non-EU producers who do not face the same costs (i.e. European non-ferrous metals producers are 'price-takers')[10].

A good example of our exposure to increased electricity prices can be seen from a recent study by EWI which concluded that a cost increase of 1 cent per kWh reduces the GVA of an aluminium smelter by 24%, or 15 million euros, whereas abolishing the reductions to the regulatory charges paid by aluminium smelters (including RES support) would eliminate their entire GVA and turn it negative[11].

Limiting RES surcharge costs

In the draft CEEAG, renewables support is dealt with in section 4.1, while section 4.11 provides the possibility to grant reductions to energy-intensive industries particularly exposed to carbon leakage for their additional costs due to national renewable energy support schemes.

The possibility for targeted RES charge reductions (in section 3.7.2 of the EEAG and foreseen in section 4.11 in the new Draft CEEAG Guidelines) has played a crucial role in limiting relocation since 2014, given that non-ferrous metals are particularly sensitive to an increase in the costs of electricity[12].The different levels of minimum contribution reflect the fact that RES charges burden different sectors and undertakings within sectors to varying degrees, depending on 1) their electro-intensiveness and 2) trade intensity/ability to pass on costs[13]. We are pleased that this has been maintained.

In the new draft Guidelines, undertakings pay at least 25% of the levies concerned. This minimum level of contribution is higher compared to what companies are exposed to in the current guidelines in contrast to the ever-higher power system

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[5] Masterplan for a Competitive Transformation of EU Energy-intensive Industries Enabling a Climate-neutral, Circular Economy by 2050. Available here.
[6] IES/VUB 2019. Metals in a Climate Neutral Europe. Available here.
[7] On electricity, the strategy projects wind with a 60% share by 2045 and solar representing 25%. The remaining 15% will be a mix of nuclear, hydro and/or gas with CCS.
[8] For more details on our electro-intensity and price taker status, see Annex i 'electro-intensive nature of non-ferrous metals producers'.
[9] Since 2008, the EU has lost 36% of its primary aluminium smelting capacity (due to plant closures & curtailments). See Annex vi 'Carbon Leakage in our sector'.
[10] See Annex ii on our price taker status for more details
[11] EWI, 2019. Electricity costs in the non-ferrous metal industry - A sensitivity analysis. Available here.
[12] To demonstrate this, we give the example of a smelter in Greece (based on public data). According to the European Commission's 2018 Energy & Prices report (CEPS), the average all-in electricity price paid by European smelters is 39.6 €/MWh. Paying the full RES surcharge in Greece would increase electricity costs by 16.7 €/MWh. This is an incredible 42% increase on the average electricity price paid by European smelters. Since electricity is 40% of the production cost for primary aluminium, paying the full RES surcharge would increase total production costs of a Greek smelter by 16.8%. This is far beyond the regulatory cost which a price taker sector facing the highest level of global competition can bear.
[13] See Annex iii 'Ensuring sectors and undertaking receive equal treatment' for more details

transition costs that industry faces[14]. Coupled with paragraph 414, it would appear that national schemes very recently approved by the Commission (with a duration of 10 years or eve more) could potentially face a significant increase in the EII's exposure to said costs, in direct contrast with the requirement for regulatory certainty. Furthermore, there is also a possibility to cap undertakings' own contribution to 1.5% of their GVA (par. 360). This is also an increase compared to the current guidelines, where there is a double cap of 0,5 % or 4 % GVA.

Ideally the cap foreseen in the new Guidelines should be limited to 0.5% of GVA for the most exposed consumers[15], but provided that 1.5% of GVA applies to the combined sum of all environmental fees and levies (RES surcharge reductions, PSOs, high efficiency co-generation) this could be deemed reasonable. In the annex to this response, **section IV** proves the exposure of non-ferrous metal producers to increased electricity prices that are down to regulatory surcharges.

Public Service Obligations (PSOs)

In recent case law, the European Commission has approved reductions of PSOs related to (i) ensuring equal electricity price in non-interconnected areas and (ii) funding social tariffs[16]. Here it is recognised that "*to prevent electricity consumers particularly affected by the costs of funding high-efficiency co-generation, tariff equalisation and social tariffs* (i.e. companies that are both electro-intensive and exposed to international competition), *from becoming insolvent or relocating outside the European Union, reductions in charges imposed on electricity consumption may prove necessary".* The Commission based its Decision on the criteria set out in paragraphs 188 and 189 of the EEAG, acknowledging the particular burden created for electro-intensive companies (and the resulting risk of relocation to areas with lower electricity prices) and therefore also acknowledging the need for targeted surcharge reductions in order to ensure a sufficient financing base for the measure. The draft Guidelines correctly include PSOs in paragraph 354. This should be maintained in the final Guidelines.

High-efficiency co-generation

The European Commission has repeatedly recognised that the promotion of high-efficiency cogeneration (HE-CHP) is an objective of common interest, given that (i) contributes to the efficient production of energy and (ii) it reduces carbon emissions. Therefore, the Commission has held that targeted reductions can also (indirectly) contribute towards the same objective of common interest, in cases where reductions are necessary to secure the financing base for the HE-CHP support scheme[17]. Such reductions have already been approved in several Member States, including Germany (SA. 42393), Italy (SA. 38635), France (SA. 36511), Greece (SA. 52413) and Poland (SA. 522530). It is positive and correct that charges related to CHP support are included in paragraph 354 of the draft Guidelines. This should be maintained in the final Guidelines.

Policy request

- ✓ Preserve the approach [the "hardship clause"] adopted in section 4.1 of the draft Guidelines, which foresees the possibility of limiting costs of RES surcharges, public service obligations and high efficiency co-generation surcharges to a combined maximum of 1.5% GVA

[14] In fact, in Germany the levies for RES, CHP and offshore all have increased since 2014 (RES: from 6.2 Ct/kWh to 6.7 Ct/kWh; CHP from 0.17 Ct/kWh to 0.22 Ct/kWh; Offshore: 0.25 Ct/kWh to 0.41 Ct/kWh). This underlines that the costs of the transformation of the energy system will increase. For more information on the expected impact of these charges in the future power prices, please check **section II.b) in our Annex**.

[15] In two known cases in the non-ferrous metals industry, the increase in the cap from 0.5 to 1.5 % results in additional costs of between 1.5 and 3 million euros for 2 different companies; even if the cap is applied to the sum of levies.

[16] See decision 2019/767 on SA. 36511

[17] Commission Decision 2017/1797 on aid scheme SA.42393, recital 125; Commission no-objection decision concerning SA.38635 (C(2017) 3406 final), recitals 132 et seq.

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ii. Aid for the reduction and removal of direct greenhouse gas emissions in industry

The possibility of aid for the reduction/removal of greenhouse gas emissions from industry (section 4.1 of the draft Guidelines) is a very positive and essential development given that the possibility for such aid is a key enabling condition for industrial decarbonisation. This should be maintained in the final Guidelines since it could play an important role in reducing direct emissions from the production of non-ferrous metals. **However, as we outline in the next section, its scope should be expanded to include not just direct emissions but also indirect emissions from industry.**

2. Areas where the Guidelines should be extended

Not all the costs related to the ongoing transition are limited to '*stricto sensu*' RES surcharges. In fact, the transition has led to European electricity consumers being burdened with numerous other costs and charges, which threaten the global competitiveness of the most electro-intensive consumers (and particularly those who are also 'price takers' in global markets). The Commission has taken note of this and since the adoption of the EEAG, has evaluated (and approved) targeted reductions to numerous other electricity surcharges. Below we discuss the following costs resulting from the transition of the power system; i) support to capacity mechanisms ii) the funding of low-carbon energy; and iii) increased system costs. Given the impact of these costs on the competitiveness of electro-intensive sectors facing international competition, the Commission should consider extending the scope of Section 4.11 of the draft CEEAG to encompass these elements.

At the same time, the CEEAG will also play a crucial role in facilitating investments in industrial decarbonization. The possibility of aid for the additional costs involved in implementing low-carbon technologies (e.g. hydrogen, CCS/CCU) plays a crucial role in facilitating these investments. In order to avoid unjustified discrimination between different industrial sectors, and in order to incentivize as many industries as possible to electrify their processes, decarbonization aid must also be available for electro-intensive industries.

i. Costs resulting from the transition of the power system

1) Aid in the form of reductions in the funding of capacity mechanisms

The draft Guidelines do not allow reductions from charges financing capacity mechanisms. Paragraph 354 of the draft Guidelines clarifies that reductions are only allowed in the case of "levies on electricity consumption which finance an energy policy objective" and not in cases where the levies "reflect part of the cost of providing electricity to the beneficiaries in question". The Commission considers that charges financing capacity mechanisms fall under the second category (reflecting part of the cost of electricity supply), and therefore reductions are not allowed. However, capacity mechanisms are becoming increasingly necessary specifically because of the increasing levels of RES penetration (this is actually acknowledged in the existing EEAG, paragraphs 216-218). The cost of capacity mechanisms cannot be considered as "part of the cost of providing electricity" but actually part of the cost for security of supply; instead, it would be more correct to view levies that finance capacity mechanisms as "financing an energy policy objective" (i.e. facilitating the integration of renewables & replacing carbon-intensive generation with low/zero carbon dispatchable capacity), which would justify targeted surcharge reductions in line with the provisions of the draft Guidelines (Member States may grant reductions from levies on electricity consumption which finance an energy policy objective. The possibility for targeted reductions from capacity mechanism surcharges should therefore also be foreseen and para. 354 of the draft Guidelines should be amended accordingly.

Policy request

- ✓ Expand section 4.1 of the draft Guidelines to include targeted reductions to capacity mechanism surcharges, which should be viewed as decarbonisation levies.

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2) Aid in the form of reductions from the levies funding low carbon energy

Section 4.1. allows for aid measures primarily aimed at reducing greenhouse gas emissions, including aid for the production of renewable and low carbon energy. While related surcharges financing the aid for the production of electricity from renewable energy are eligible to be reduced under the scope of Section 4.11, potential surcharges from aid for low carbon energy production are not included.

The scope of Section 4.11 should be extended to include surcharges for low carbon energy, given the fact that they serve the same energy policy objective, namely reducing greenhouse gas emissions (as stated in paragraph 74) and given the massive costs entailed by the construction of a nuclear power plant, costs eventually paid by final customers in their electricity price. Such extension of the scope of Section 4.11 would also provide legal coherence between the two sections (4.11 and 4.1) and would not discriminate amongst various sources of energy (RES vs. low carbon), thus reducing the risk of social opposition to the latter as it would create a significant burden on energy intensive sectors.

Policy request

✓ Expand section 4.11 of the draft Guidelines to include targeted reductions from levies financing support for low carbon energy.

3) Addressing systemic costs resulting from the deployment of renewables

In the coming years further steps will be needed to integrate renewables into the power system. In several Member States systemic costs have risen, for example redispatch costs, feed-in management costs. Although these costs are also linked to the decarbonisation of the electricity, section 4.11 of the draft CEEAG leaves them out of the scope.

Looking ahead, the reviewed Guidelines have to focus on all the costs which are linked to the transformation of the energy system into a system powered more and more by renewables, factoring in broader systemic costs.

Policy request

✓ Expand section 4.11 of the draft Guidelines to include targeted reductions from systemic costs connected with the transformation of the electric system such as redispatch, feed-in-management, etc.

ii. Aid for Industrial Decarbonisation – expanding to include indirect emissions (i.e. Scope 2 emissions)

As noted above, while it is very positive that paragraph 100 allows for aid for the decarbonisation of industrial activities, the Guidelines seem to limit this to emissions that result "directly" from an industrial activity. This provision unfairly discriminates against electro-intensive industries such as non-ferrous metals which are not characterised by high levels of direct emissions but instead face significant challenges in reducing/eliminating their indirect emissions (by switching to low-carbon supply)[18]. In order to facilitate the decarbonisation of these sectors, the scope of Section 4.1 must be extended so as to also foresee the possibility of aid for the reduction of indirect emissions from industry. This is necessary in order to i) facilitate the decarbonisation of electro-intensive industries such as non-ferrous metals and ii) to enable other industrial sectors to electrify their processes, in line with the Commission's Long-Term Strategy for a climate neutral Europe.

[18] As outlined in our 2050 report here, decarbonising the power sector in the EU would reduce our carbon footprint by 81% by 2050.

Paragraph 100 of the draft CEEAG limits the scope of such aid by clarifying that "aid for the decarbonisation of industrial activities must reduce the emissions directly resulting from that industrial activity". This wording would seem to prohibit aid for the reduction of indirect emissions, thereby creating significant distortions between different industrial sectors decarbonisation plans. As aforementioned, while we are constantly reducing our direct emissions[19], 4/5th of the reductions need to come from reducing our indirect scope 2 emissions. This is where the main decarbonisation focus needs to be.

Under the current proposal:

- Industries characterised by high levels of direct emissions (e.g. cement, fertilisers, steel BOF etc) would be eligible for decarbonisation aid.
- However, electro-intensive industries (more intensive in scope 2 than scope 1 emissions such as non-ferrous metals) would not be eligible for decarbonisation aid.

Despite the fact that renewable electricity is widely acknowledged as the single most important contributor to the energy transition, the European energy/climate/state aid acquis does not foresee a single support scheme that could help consumers (and especially electro-intensives, who are particularly sensitive to electricity prices) to consume renewable electricity. This is a major oversight, which should be corrected. The possibility for targeted support, covering the incremental costs involved in signing a RES PPA (in must the same way as the EEAG already foresee the possibility of aid for the incremental costs involved in, for example, implementing CCS/CCU) would pave the way for a wide-scale, cost-efficient decarbonisation of both European industry and the European power sector.

Renewable PPAs: How the CEEAG could help electro-intensive industries to decarbonise

Given the importance of competitive power to our industry, the non-ferrous metals are at the forefront of renewable power corporate purchasing, particularly in the Nordic power markets. However, outside of the Nordics, numerous obstacles remain that prevent large scale RES PPAs from being signed in mainland Europe.

These obstacles were assessed in a report published by the European Commission[20] . In particular, the requirement for massive volumes of baseload electricity makes it very difficult, and very expensive, for large electro-intensive consumers to cover their demand using low-carbon generation, which tends to be much more variable given the profiles of wind and solar production. Given that baseload electricity is needed for non-ferrous metals producers, the cost of matching variable electricity generation with an industrial consumption profile (so called "firming costs" or "shaping costs") was identified as a major barrier to the further uptake of RES sourcing in the "Masterplan for a Competitive Transformation of EU Energy-intensive Industries"[21]. Although the EU's state aid rules routinely foresee the possibility for aid to cover the incremental costs involved in decarbonisation, such a possibility has not yet been foreseen with regard to consuming renewable electricity.

This is something which the upcoming Guidelines should seek to address. In order to achieve this in the most effective and cost-efficient way, one possible idea would be for the CEEAG to facilitate the possibility to introduce the creation of "Green Pool" aggregators that will further incentivise PPA agreements by electro-intensive consumers[22]. This idea is elaborated upon in other stakeholder responses but in brief, the ("new/additional") electricity produced by RES developers based on corporate PPAs with EIIs is "pooled" together by an aggregator that is established for this purpose. The aggregator undertakes all shaping responsibilities and supplies the consumer with a supply of electricity that matches its consumption profile. The firming/shaping costs are borne exclusively by the aggregator, and the aggregator is

[19] For details, see page 40 onwards of our roadmap here.
[20] See "Competitiveness of corporate sourcing of renewable energy, Part 2 of the Study on the competitiveness of the renewable energy sector", ENER/C2/2016-501
[21] Masterplan for a Competitive Transformation of EU Energy-intensive Industries Enabling a Climate-neutral, Circular Economy by 2050. Available **here**.
[22] Enervis, 2021. The Green Pool – A concept for decarbonizing the electro-intensive industry of Greece. The study can be found here.

compensated for these costs via public funding (via a CEEAG compatible scheme). Such a system would be a win-win, adding new RES capacity to the electricity system and ensuring that industry can sign-long term PPAs at a price that is suitable for both themselves (in terms of ensuring global competitiveness) and the RES developer (in terms of financing the RES project). The RES units involved in the Green Pool would not be eligible for further support under a RES support scheme, thereby eliminating any possibility for double compensation. In many cases, the cost of subsidizing the incurred shaping/firming costs would actually be lower than the cost of subsidizing the same RES capacity under a conventional RES support scheme, but with the added benefit of actually helping the consumer access this electricity. In this regard, the proposed scheme should be viewed as a more efficient, more targeted version of a RES support scheme.

Policy request

✓ Expand paragraph 100 to also include indirect emissions. The text could read "aid for the decarbonisation of industrial activities must reduce the scope 1 **or scope 2** emissions directly resulting from that industrial activity".

3. Areas where the Guidelines should be changed

i. Conditionality

Paragraphs 364 and 365 stipulate that for reductions granted under Section 4.11, the beneficiaries shall be subject to energy efficiency audits and one out of 3 project conditionality requirements. In recent regulation we have witnessed the implementation of similar requirements in order to have access to carbon leakage protection, like the recently adopted Indirect Costs guidelines or the free allowances conditionality requirements outlined in the Commission's proposal for a reviewed ETS directive, as well as several pieces of legislation at national level. Within this context, we see a risk of multiplying these schemes outside the industry's business cycles. To minimise this potential distortion, we propose two solutions:

1. Once an energy efficiency audit is fulfilled for one of the regulations, and any relevant investments falling within the payback period threshold are implemented, the same audit may be used to access the carbon leakage protection from other regulation. This would minimize compliance costs for eligible sectors and the risk of repeated audits in the framework of different aid schemes, while increasing certainty across Member States.

2. To create an independent body or instrument to appeal in case of non-conformity with the audit recommendations. This would address the imbalance of power of the auditors, especially when there is a lack of knowledge of the complex production process by the auditors. Where the installation disagrees with the recommendations of the auditor, it should at least have the possibility to appeal to an independent body.

ii. Taxonomy

On another issue, the proposed guidelines also mention that the Commission will pay particular attention to Art. 3 of the EU Taxonomy Regulation, i.e. substantial contribution criteria and 'do not significant harm' principle, when weighting the positive effects of the aid against the negative effects on competition and trade.

At this stage, the added value of using the EU Taxonomy as a reference for State aid to define positive environmental benefits is highly questionable. Therefore, restricting the definition of positive environmental benefits to the EU taxonomy for State aid is premature and risks not reaching the intended effects (i.e. supporting the transition of the economy).

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iii. Applicability

Paragraph 414 (a) requires Member States to "amend, where necessary, their existing environmental protection and energy aid schemes in order to bring them into line with these guidelines no later than 31 December 2023". Such provision raises the risk of affecting the legal certainty of the decisions already approved under the EEAG and would have a retroactive effect of questionable legality while creating chaos in the electricity market and discouraging the investments so badly needed to achieve the EU decarbonisation targets. Furthermore, we find this provision at odds with Commission's recent approval[23] of support schemes under EEAG and with a life span beyond the EEAG expiration date.

We therefore consider appropriate to eliminate the whole paragraph 414, for the purpose of preserving legal and investors' certainty, similarly to the EEAG approach which goes even further and specifically mentions that support schemes approved under previous guidelines are not to be affected by the new provisions.

iv. Recycling: Competitive bidding and aid for circular economy

Competitive bidding

According to the guidelines, competitive bidding (par. 48) is the default mechanism for awarding aid and setting the level of aid. We recommend that separate bidding procedure are set for recycling projects, but also for immature technologies. It is important to allow the recycling business to grow; furthermore, new immature technologies need to be adequately supported and implemented as soon as possible.

Aid for resource efficiency and for supporting the transition towards a circular economy

The Guidelines allows aid if the investments lead to an improvement of resource efficiency via a net reduction in the resources consumed in the production of the same quantity of output or the replacement of primary raw materials or feedstock with secondary (re-used or recycled) raw materials or feedstock. However:

- In par. 192, footnote 77 exempts energy from all the material resources consumed for the assessment. Recycling aluminum only requires 5% of energy compared to primary, representing an important way to both reduce emissions and import dependency.
- According to par. 210 of the draft Guidelines, for aid to support resource efficiency and the transition towards a circular economy, aid intensity must not exceed 40% of eligible costs. We understand this as if aid is limited to 40% of the extra (or incremental) cost for investments in circular economy. From a first assessment, this could be a problem because State aid should cover all of these costs to compete against less circular investments alternatives, even if par. 214, which provides more flexibility if the Member State can "demonstrate, based on a funding gap analysis, as set out in points 47, 50 and 51, that a higher aid intensity is required".
- Small projects & recycling: Paragraph 92 lists the possible exceptions from the competitive bidding process.
    - Recycling activities should be added to the list of small projects allowed for exception. The reason is that small projects should not be disadvantaged. Some of the abatement costs are fixed costs and are at the same level regardless of the production site's size and therefore represent a too high burden for small plants.
    - Separate fall-back benchmark is needed for small recycling activities which are included in the ETS. For installation excluded from the ETS, due to size levels, a separate state aid support will be necessary to face the extra carbon tax or extra cost on the fuel (like carbon tax in Norway). To incentivize the transition of the European economy by stimulating recycling, one should treat recycling activities differently from other activities.

[23] SA.50272 - French support scheme for renewable energy approved under EEAG on 27 July 2021

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v. Impact Assessments Obligations

Section 4.1 sets the framework for designing and approving of support scheme reducing GHG emissions. We welcome their attached governance provisions, particularly those on the obligation to carry out a public consultation and suggest that the subsection 4.1.3.1 on the necessity of aid to be further improved. Approval of support schemes must be conditioned on the inclusion of an impact assessment study, prepared by a neutral party. The study would analyse the costs incurred by the support measure on other market participants or on consumers (households and industry). Such a study would ensure social acceptance of the support measure and it is a tool specific to good governance.

4. Consultation questions

i. Eligibility

Industrial Gas sector/products outsourced by industrial gases sector

We are concerned about the proposed removal of the industrial gas sector – in particular oxygen – from the list of sectors eligible for reductions from electricity levies for energy intensive users (EIU). It should be noted that some non-ferrous metals companies, particularly in the copper sector, outsource their oxygen production to industrial gas producers. However, these form an integrated site and the industrial gas sector is in many cases an integrated part of the value chain of our sector, which is exposed to the high level of international competition as a price-taker industry. The exclusion of the production of industrial gases from the CEEAG eligibility would inevitably increase costs for downstream sectors which would ultimately bear the consequences (See Annex iii with the estimated impact on production costs for copper).

Elsewhere, not providing compensation to those copper companies that outsource their oxygen production could create a distortion of competition within our sector and disrupt value chains. Since it represents one integrated site and those that outsource would be at risk of relocation due to outsourced oxygen being eligible, the trade intensity of the industrial gas producers' customers (i.e., the copper site should be used). This would prevent competition distortion.

Policy request

✓ The industrial gas sector should be in the list of eligible sectors. To prevent distortion, we suggest that the trade intensity of the industrial gas customers be used.

Casting of non-ferrous metals & and precious metals

The new reduced list does not provide protection for some levies reductions for some important non-ferrous metals codes in our value chain such as:

- Nace code 2453 – Casting of light metals
- Nace code 2454 – Casting of other non-ferrous metals[24]
- Nace code 2441 – Precious metals production
- Nace code 3832 – Recovery of sorted Materials

These sectors are also fundamental in the achievement of the Europe's twin green and digital objectives. These metals facilitate GHG emission reductions in numerous other sectors, from renewable energy systems, through energy efficient end-use appliances to electrified transport, heating and cooling systems as well as decreasing greenhouse gas emissions by sorting the materials beforehand. They are also a key material in battery production, a strategic priority of the European Commission.

[24] If casting processes are no longer eligible for reductions, their profitability would be severely damaged.

For more information on their role in the digitalisation and decarbonisation of our economy, we invite you to check our roadmap, pages 27 to 31 here.

Policy request

✓ Nace codes 2453, 2454, 2441 and 3832 should be included in the list of eligible sectors.

ii. Cumulative level per MWh

Having read the accompanying support study to the draft guidelines[25], we understand that the introduction of a new threshold representing the 'cumulative effect of all levies' - as described in para. 356 of the draft guidelines – tries to serve the purpose of minimising the trade-offs between the 3 policy objectives: (i) to increase the budget to finance RES & CHP; (ii) to minimise distortions across EU Member States; and (iii) to reduce the risk of relocation of EIIs outside Europe.

The support study modelled different scenarios and concluded that exemptions conditional on the full levy exceeding a certain threshold are best in resolving the trade-offs between these policy objectives as it would allow for an increase in budget for supporting RES & CHP, while reducing the competition distortions among Member States and also being unlikely to cause large profitability reductions in most countries and sectors.

However, it should be noted that for price-takers competing globally, the only way of accurately assessing distortions is not between EU producers but rather within the global market, including non-EU producers. To tackle this, the EU should develop a more globally focused competition policy that looks at extra-EU market distortions, not just at the Single Market.

A climate ambitious state aid policy and its enforcement should, as a general principle, take into account the impact on the global competitiveness of the European industry as a key factor. Global warming is not an EU internal-market problem, but rather an international one. Through its ambitious climate policy, Europe is aiming to lead on international climate action, but its effort will have limited effect if we do not see corresponding, reciprocal effort by other large nations or regions. By acting alone, European industry is suffering from added costs compared with main international competitors. Until this global level playing field is established, European industrial competitiveness needs to be safeguarded also via competition policy. In today's carbon constrained world, globally competing industries, such as non-ferrous metals, are exposed to market distortions due to different non-reciprocal climate policies worldwide. Therefore, it is of utmost importance that competition policy and state aid address growing global competition imbalances, too.

The proportionality of the targeted surcharge reductions for electro-intensives is already ensured by the maximum aid intensity and -even more so- by the GVA cap. **Thus, there is no need for a further threshold**. Actually, it could outweigh the relief for energy intensive schemes by leading to a significant erosion of the most electro-intensive sectors. As a clear-cut example, a recent study by EWI[26] concluded that a cost increase of 1 cent per kWh reduces the GVA of an aluminium smelter by 24%, or 15 million euros.

Policy request

✓ We believe that the introduction of a new condition for aid eligibility in the form of a threshold representing the "cumulative effect of all levies" **is not necessary or appropriate**. Transparency in relation to the amount of total levies determined by the energy transition and paid by energy-intensive industries in their final energy price would be more appropriate.

[25] https://ec.europa.eu/competition-policy/system/files/2021-06/kd0521173enn_EEAG_revision_2021_0.pdf

[26] Section IV of the Annex provides the main takeaways of the report. For more details, the EWI sensitivity analysis of the Electricity costs in the non-ferrous metal industry can be accessed **here**.

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Annex

i. Electricity costs – much bigger impact on Europe's metals sector[27]

At the level of electricity consumption per tonne of metal, primary aluminium is the most electro-intense (15.4 MWh/t) followed by silicon (12.4 MWh/t), ferro-silicon (8.9 MWh/t), nickel (5.3 MWh/t), zinc (3.9 MWh/t) and copper (1.5 MWh/t). Compared to other energy intensive industries' production processes, non-ferrous metals production's electro-intensity is clearly higher, with the exception of chlorine production.

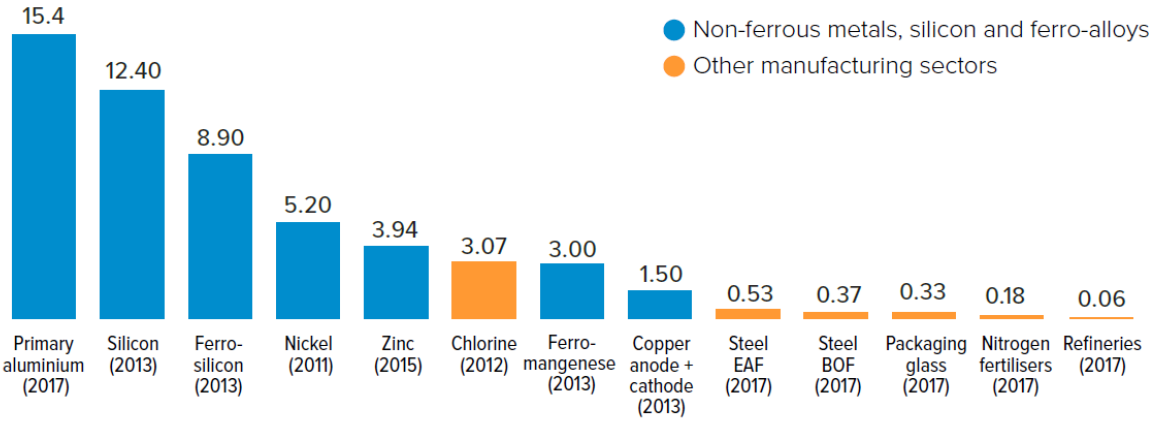

Figure 36: Average electricity use per tonne metal (MWh/t)[242]

When it comes to electricity costs as a percentage of total production costs, non-ferrous metals show the highest share. For zinc these costs are approximately 38.5%, for primary aluminium 38.3%, for silicon 35% and for copper 27% and nickel 19%. This is significantly higher than most other energy intensive materials with the exception of chlorine production.

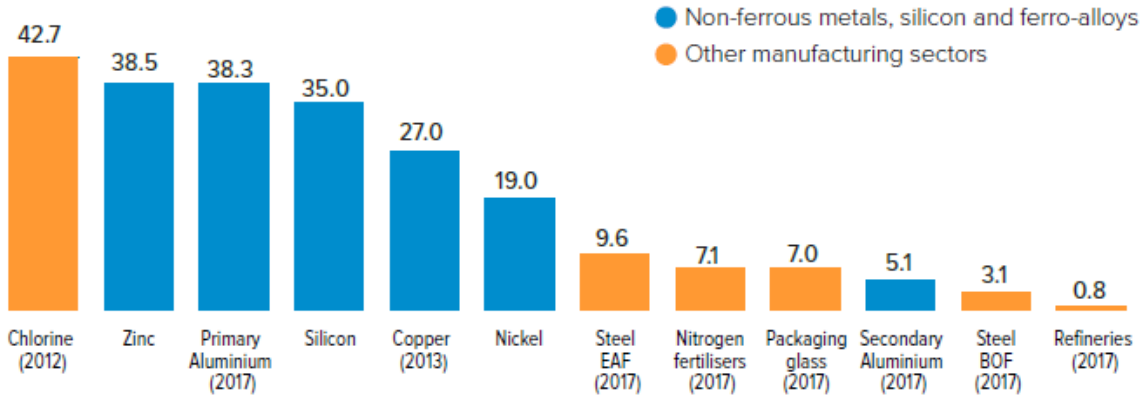

Figure 37: Electricity costs as % of total production costs[243]

[27] Detailed information on the non-ferrous metals' electro-intensiveness can be found in the 2019 IES/VUB report: Metals in a Climate Neutral Europe, page 67. Available here

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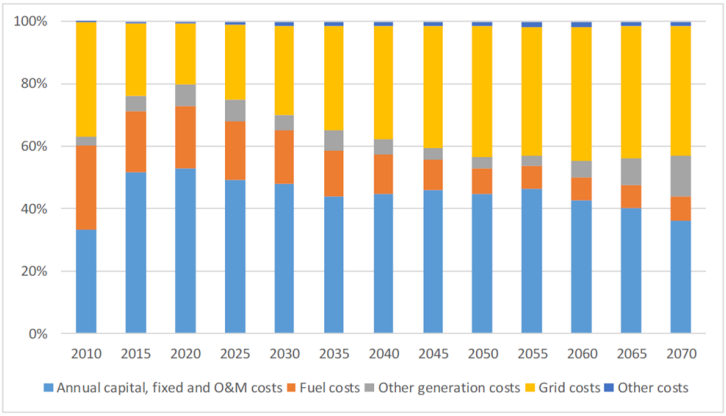
ii. What will influence electricity prices in the future?

Looking ahead towards the transition, it will be crucial to understand how the power consumption price will evolve. Indeed, the Commission's CEEAG official public consultation[28], that took place in January 2021, asked for feedback on the expected changes of the various components of the electricity bill in light of the EU's increased climate ambitions: whether it will be (a) the wholesale price; (b) levies related to other decarbonisation objectives; (c) network charges; (d) energy taxes or (e) others.

We have analysed this question across the many power markets we operate in across Europe and integrating renewables in the power system generates different costs from country to country, depending on: (1) national climate policies, (2) electricity system structures and (3) geographical factors.

What is clear though is that all the components of the power bill will increase sharply and **transmission and distribution investments cost are expected to offset reductions in generation costs,** as concluded in the Commission's Long-Term Vision 'A Clean Planet for All'[29].

Figure 100: Composition of electricity costs in the high electrification scenario (ELEC)



Source: A Clean Planet for All – Long Term Decarbonisation Strategy

In order to properly explain the complexity of this question, below we provide the factors that affect each cost component and their expected cost increases in some Member States.

a) Wholesale price

The impact on wholesale prices is double-edged as more RES depress average power prices, but at the same time fossil generation is phased out. In addition, increased share of renewables will bring more volatility in the power prices and need for energy storage.

Overall, marginal power prices are expected to increase as a result of power supply shortage caused by the shutdown of low-cost base and medium load generators (nuclear, lignite and hard coal):

- In Germany, different studies concur that fuel switch due to the nuclear and coal phase outs (by 2022 and 2038 respectively) will have a significant upwards price effect. The highest price increase was estimated by Aurora Energy Research in January 2019 with 4 to 14 EUR/MWh (risk scenario). For the most electro-intensive industry this could be even 19 €/MWh due to an effect on the compensation on indirect costs).[30]
- In France, power prices increase is also expected due to the decrease in nuclear capacity (non-renewal of the nuclear basis). From a regulatory perspective, the ARENH mechanism brings even more uncertainty for industrial users (uncertainty on price, volume, and accessibility for industrial users). In addition, increased share of renewables will bring more volatility in the power prices.

This phenomenon applies across most Member States in the European Union. Additional examples of fuel switch plans are[31]: Greece where all existing lignite generation plants should be decommissioned by 2023 (except for a plant under construction; if completed, this is expected to operate until 2028) or the Belgian nuclear phase out is scheduled for 2025.

[28] Question 130 of January 2021 EEAG Public Consultation Questionnaire available **here**.
[29] Figure 100, In-depth analysis in support of the Commission Communication COM(2018) 773 accessible **here**
[30] Aurora Energy Research, 2019. Auswirkungen der Schließung von Kohlekraftwerken auf den eutschen Strommarkt. Available **here**.
[31] Planned Coal phase-outs: France by 2021; Sweden by 2022; Austria, Ireland, Italy and the UK by 2025; Greece by 2023/2028; Finland and the Netherlands by 2029; Denmark, Spain, Hungary and Portugal by 2030; and Germany by 2038.

Elsewhere, the CO2 price has today a big impact on the electricity price across Europe and is expected to continue to have a massive impact in the 2030 perspective. To put the example of Greece, when the ETS price increased to 40 €/t, then, the carbon cost pass-through was 30€/MWh (assuming a pass-through factor of 0.75) and an ETS price of €50 increased the wholesale price by 37.5 €/MWh.

b) Price component related to charges from the green transition, such as Renewables Support Schemes Surcharges, Capacity mechanisms, CHP-HP, PSO etc

Firstly, the costs for Renewable Energies Support Schemes are also expected to rise further due to two reasons:

1) **Massive new RES power volume to enter the market over the next decade**
   In order to achieve the increased EU 2030 GHG reduction target, nearly all the National Energy and Climate Plans (NECPs) have confirmed[32] an increase in their renewable energy ambition. This will result in significant renewable power capacities to enter the market over the next decade.[33]

2) **Previous Renewables Support commitments will still have an effect over the next decade**
   In some Member States like Greece or Romania, although the support being offered to new RES units (in terms of €/MWh) are decreasing, still less than 10 years ago, renewable producers could receive a guaranteed price of up to 550 €/MWh for their production. This support is granted for 20-25 years, so the cost impact will be maintained for another decade. In other Member States like France, only a small portion of the committed the government support to renewable has been paid out (25% of amounts committed till 2019 -total c. 140b€- where paid at that time).

Secondly, due to the uncertainty/volatility caused by renewables, capacity mechanisms, feed-in-management, redispatch, etc are to become a permanent feature of electricity markets in the future. They will be one of the main drivers of the power prices.

In addition, it is foreseen a string of charges related to the promotion of breakthrough abatement technologies that would be economically unviable without support schemes (such as CCS/CCU or hydrogen). In particular, green hydrogen will need massive amount of new renewable sources – and will need a very high level of public support on power cost (as green hydrogen needs power costs around 15-20€/MWh to be competitive compared to grey hydrogen). This would most likely have a massive impact on the electricity bill.

c) Network Charges

Network charges are expected to increase to cover grid expansion to integrate and transport high volatile RE electricity production and to manage the intermittent profile of renewables, such as: connection costs for offshore wind farms, grid management costs related to shutdown of last coal plants and increase in distributed generation, as well as new investment.

iii. Copper Outsourcing – Sensitivity Analysis

We are concerned that Industrial Gases (NACE 20.11) – including oxygen and hydrogen are removed from the list of sectors eligible for reductions from electricity levies for energy intensive users. This will have a negative impact on the competitiveness of, inter alia, EU copper industry by the rising cost of electricity due to environmental taxes and financing costs of renewable energy supports.

[32] The Commission's Assessment of the NECPs published in September 2020 is accessible **here**
[33] To put an example, Greece's NECP foresees an increase in wind capacity from 3.3 GW at the end of 2019 to 7.05 GW by 2030, whereas solar PV capacity is expected to increase from 2.6 GW to 7.66 GW during the same period of time. The Greek NECP is available **here**.

Oxygen production is an integral part of the copper production process. Use of oxygen enrichment of combustion air for copper smelting contributes to energy efficiency and decrease of direct carbon emissions. The production of oxygen requires significant electricity consumption, representing up to 24-40% of total electricity use in copper smelters (Lauri Pesonen , 2017, "Understanding electrical energy use at copper smelters").

Oxygen enrichment is considered as the best available technology to improve energy efficiency for copper production. Furthermore, our flash smelting furnaces in the primary copper production route, under normal conditions, operate without any extra fossil fuels by only using the high oxygen enrichment of the combustion air. By this progress we managed to reduce our direct CO2 footprint significantly in the past.

Without aid for energy intensive users, higher costs for industrial gases will have a negative impact on EU competitiveness at global trade and industrial value chains. The copper industry is electro-intensive and a price-taker on global markets. The competitiveness of the EU copper smelters is determined by the processing revenues (treatment charge and refining charge) minus the operating cost, including energy and electricity costs. Therefore, the electricity levies have a high impact on erosion of profit margins. Not exempted, the electricity levies (20, 40, 60 €/MWh) for the cost of oxygen production represent respectively for 8, 15 and 23 % of the profit margin.

Considering the important role of the industrial gases (mainly oxygen and hydrogen) in the decarbonization of industrial processes such as copper production, withdrawal of sector 20.11 from the list would not only increase the risk of carbon leakage but also inhibit copper sector's continued decarbonization efforts. Also, a level playing field between outsourced and insourced industrial gases should be safeguarded.

iv. Impact of EEAG on our competitiveness: Case studies from Germany, France, Greece and Romania

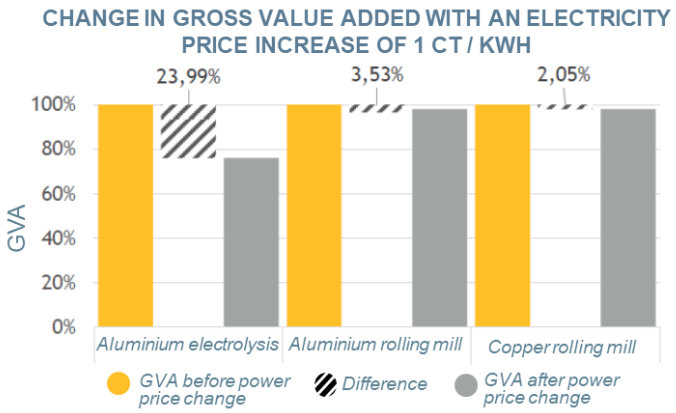
Germany

A 2019 study by EWI[34] analysed data of four companies from the non-ferrous metals industry in Germany to show 1) the effects of an increase in electricity prices on the gross value added (GVA) of the respective companies and 2) the importance of the existing regulatory reliefs for hyper-electrointensive companies.

Massive cost impact of electricity prices on non-ferrous metals' competitiveness

The analysis showed that **a small increase of 1 ct/KWh in electricity prices could reduce up to 24% of the GVA of German non-ferrous metal companies** (i.e. 15 Million Euro) while **the GVA of the entire manufacturing industry would decrease by an average of 0.5%**.

The electricity-cost intensity of the metal industry is the highest in with an average of 14.5%. The paper industry ranks the second at 9.5% electricity-cost intensity[35]. The metal industry is therefore the most affected one by changes to electricity costs and electricity prices.



[34] EWI, 2019. Electricity costs in the non-ferrous metal industry - A sensitivity analysis: https://www.ewi.uni-koeln.de/cms/wp-content/uploads/2019/05/EWI-2019-Stromkosten-der-NE-Metallindustrie-Sensitivit%C3%A4tsanalyse.pdf

[35] See graph 5 in page 13 of the 2019 EWI report.

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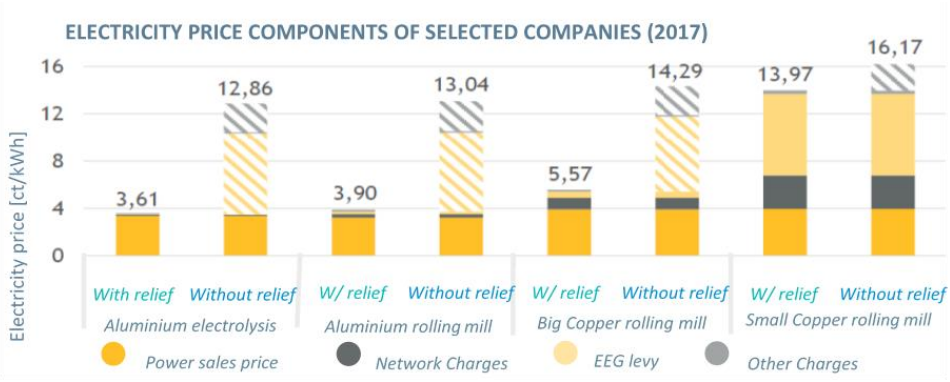
Existing regulatory relief schemes are crucial for electro-intensives

If faced with all regulatory price components, considerable increases in costs would arise. For example, **without the regulatory relief schemes the electricity price for aluminium electrolysis would be 3 times higher**.

As reflected in the graph below, in Germany the costs for having to pay all regulatory price components would:

- For an aluminium electrolysis plant: completely erode its GVA and even turn it negative, reaching -75 million Euro. This plant would thus be **unprofitable**.
- For a large aluminium rolling mill: The GVA would drop by almost 58 M€ (32%).
- For a large copper rolling mill: The GVA would be reduced by almost 35 M€ (18%).
- For a small copper plant: it already pays the full EEG levy, thus, the increase in the power price is relatively low when disregarding relief schemes. The GVA would be reduced by 0.4 M€ (1 %).

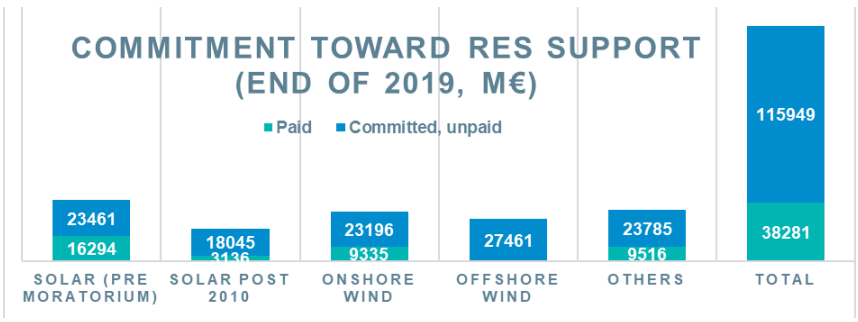


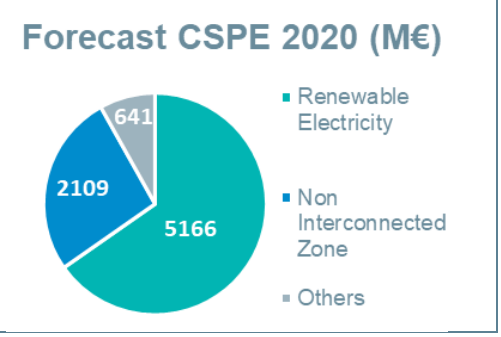
France

CASE STUDY – Without RES/PSO surcharge caps, French NFM industry will stop their operations due to potential increased charges of about 110% of its EBITDA

- Commitment for RE support of up to 149,080 M€ as of end of 2019, with 75% remaining to be paid[36]
- In 2020, the base rate for the French Public Service Obligation amounts to 22.5 €/MWh, of which 65% covering the cost of renewables.
- Committed support of 149B€, of which 103 and 115B€ still remain to be paid on a period extending until 2043. The amount already paid, c. 35B€, represents approximately 25% of the total cost of these commitments.
- This French RES surcharge is expected to increase by 23% in 2022 compared to the 2020 estimation; and will keep on increasing based on current and future commitment levels.

Without the EEAG reduction, the French non-ferrous metals industry will suffer negative EBITDA.





[36] Source : Annual Report CGCSPE, 2019

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Greece

CASE STUDY – Mytilineos – Greece's largest electricity consumer: Without the possibility of RES surcharge reductions, total production costs would increase by 17% or €47,5m annually.

In 2017, the average all-in electricity price for EU smelters was 39.6 €/MWh (including energy and regulatory charges).[37]

The base rate for the Greek renewable surcharge amounts to 17 €/MWh. The Greek RES surcharge reduction scheme (SA.52413) foresees a minimum rate of 0.3 €/MWh (regardless of whether the 0.5% GVA cap leads to a lower rate). Therefore, without the possibility of RES surcharge reductions under the EEAG, Mytilineos' electricity costs would increase by 16.7 €/MWh (i.e. an incredible 42% increase on the average all-in electricity price paid by European primary aluminium smelters). In absolute terms, this translates into an additional cost of €47.5m each year.

Power costs in Greece represent far higher share than global average (33%) despite high efficiency of the smelter. **Without the EEAG reduction**, this figure would rise to 45%. On this basis **the Greek aluminium smelter would positively shut down**.

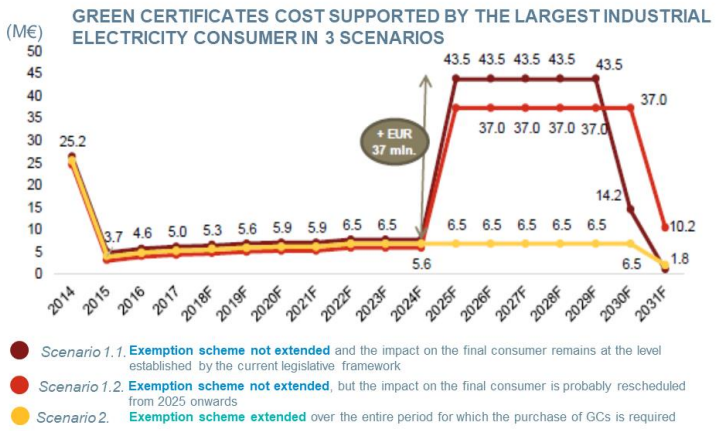
Romania

CASE STUDY – Romania's largest electricity consumer: Without the possibility of Green Certificates partial exemption, the total GC cost incurred by this smelter would increase by EUR 37 mln (e.g. 567%).

The Romanian scheme of partial exemption from Green Certificates acquisition for large energy intensive industrial consumers came in force in 2015 and is valid until the end of 2024. In 2018, a new law guaranteed the purchase of all Green Certificates awarded until 12/2031. If the energy intensives exemption were not extended from 2025 onwards, electro-intensives would incur in the full costs of green (for a 7+ years) and their competitiveness would be at serious risk.

From this starting point, a study by PwC[38] analysed the possibility of aligning both timespans. In particular, the authors took a closer look at the impact of the exemptions on the profitability of a primary aluminium producer, the largest industrial electricity consumer in Romania.

It was estimated that **following the exemption scheme expiry** (by 2024), **the aluminium smelter's cost would increase by EUR 37 mln (e.g. 567%) in the first year and 287.9 mln for the period of 2025-2031.** Whereas extending the exemption period would have a minimal impact on the final household of 1 RON/month (0.2 euro/month).



ABOUT EUROMETAUX

Eurometaux is the decisive voice of non-ferrous metals producers and recyclers in Europe. With an annual turnover of €120bn, our members represent an essential industry for European society that businesses in almost every sector depend on. Together, we are leading Europe towards a more circular future through the endlessly recyclable potential of metals.

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[37] For confidentiality reasons, we refer to the Commission's latest report on Energy Prices and Costs, which Mytilineos contributed towards.
[38] PwC Romania, 2019. Impact Study "Analysis of the mechanism for exempting the electro-intensive industrial consumers from the payment of green certificates"