

European Aluminium represents the entire value chain of the aluminium industry in Europe. We welcome the European Commission's draft EU State Aid Guidelines for Climate, Environmental protection and Energy post 2020 (CEEAG). They represent an opportunity to improve and update the current regime to reflect the latest EU regulatory and policy developments stemming from the low carbon transition affecting the competitiveness of our sector, ranging from EU energy, climate and environmental legislation to global trade and competition law developments over the last decade¹. Since the announcement of the revision, we welcome that the draft Guidelines take into account to a large extent our recommendations submitted during the several consultation rounds² and that Aluminium remains eligible under the framework for targeted surcharge reductions, given our significant electro-intensity and trade exposure across the value chain.

The scope extension towards new decarbonization technologies, circularity and new supportive measures for energy intensive users is very much welcome, alongside the additional transparency requirements for Member States when designing their national schemes.

In particular, we very much support the preservation of existing provisions on aid schemes for Energy Intensive Users (EIUs) via the reduction of levies supporting Renewable Energy Sources (RES) as well as introducing the possibility of exemptions from new charges, including Combined Heat and Power (CHP) surcharges, and levies financing social tariffs or energy prices in isolated regions. The possibility to cap undertakings' contribution to 1.5% of their Gross Value Added (GVA) is an important element that should be maintained. Below, we lay out detailed facts and figures showing the impact that electricity surcharges have on the competitiveness of European aluminium producers, and the crucial role that targeted surcharge reductions play in maintaining this competitiveness.

At the same time, certain improvements are still needed in the revised framework, which will be crucial for supporting the decarbonisation of our industry as well as boosting the demand for circular and low carbon aluminium products produced in Europe.

We believe that the new concept of allowing for state aid taking into account the cumulative effect of all regulatory charges should be clarified and, based on our understanding, do not consider it necessary or appropriate to establish such a minimum threshold in this regard.

Therefore, we would like to comment and propose a set of improvements on the following sections of the new CEEAG:

- **Section 4.11:** *Aid in the form of reductions from electricity levies for energy-intensive users & the proposed minimum threshold & cumulative effect of all regulatory charges*
- **Section 4.1:** *Aid for the reduction and removal of greenhouse gas emissions including through support for renewable energy*
- **Section 4.4:** *Aid for resource efficiency and for supporting the transition towards a circular economy*
- **Section 4.2:** *Aid for the improvement of the energy and environmental performance of buildings*

Reductions from electricity levies for energy-intensive users (EIUs)

¹ See [OECD Report](#): "Measuring distortions in international markets: the aluminium value chain" (7 January 2019) and [OECD Report](#) on "Below market Finance" (May 2021)

² See [here](#) our detailed memo with our proposals annexed to the EU Public Consultation Questionnaire, January 2021

The Commission has proposed that the new Guidelines should continue to allow for targeted levy reductions for energy-intensive users. This is extremely important considering that the financial burden from these levies will most likely increase in the coming years due to higher renewable deployment. It is also welcome that reductions have been extended to new areas, reflecting recent case law (where such reductions have already been approved in certain Member States) and market developments, such as levies that fund support for high efficiency Combined Heat and Power (CHP) and funding for Public Service Obligation (PSOs).

The production of primary aluminium is an extremely electro-intensive process, where electricity accounts for around 40% of the total production cost. A recent study³ by the Institute of Energy Economics at the University of Cologne (EWI) showed that in the aluminium sector, a cost increase of just 10 €/MWh reduces the company's GVA by an incredible 24%. Therefore, even a 1 €/MWh increase in the electricity cost can reduce GVA by 2.4%.

The support study⁴ that was published alongside the draft CEEAG clearly indicates that even in the countries with the lowest RES surcharges, the cost of this measure far exceeds 1 €/MWh, whereas in Germany the cost of the full RES surcharge is approaching 70 €/MWh. It is clear that fully exposing aluminium producers to these costs would immediately eliminate the entire GVA, turning it negative, and it would no longer be a viable option to continue producing in Europe. Therefore, the continued possibility for targeted RES surcharge reductions (as well as the possibility of similar reductions to other surcharges, thereby better reflecting the cumulative impact of the multiple regulatory charges) is both welcome and necessary. In the annex to this consultation response we provide several case studies about the impact of RES surcharges on aluminium producers in several countries in Europe.

However, the following elements should be integrated in the draft so as to better assist Aluminium producers to compete at a level playing field vis a vis our global competitors. The conclusions of the two recent OECD reports show the massive-though hardly transparent- subsidies provided to the Chinese aluminium industry, heavily distorting global competition. This is always very important to keep in mind when designing European tools to support industry's transition, given that third country producers are not exposed to the same costs we face in Europe, where, particularly in the primary segment, electricity costs can represent up to 40% of total production costs. A slight change in electricity costs further to additional levies can have a disruptive impact on our production capacities, particularly considering the "price-taker" characteristics of the sector, namely that passing on incremental costs faced in the EU alone (or a single M/S) is impossible.

Therefore, we believe the following additional elements should be considered carefully by the Commission and embedded in the new Guidelines:

- **Capacity Mechanism (CRMs) surcharges:** The scope of aid support should be extended to include the possibility to exempt electro intensive industries (EIIs) from surcharges funding Capacity Mechanisms (CRMs). The draft CEEAG (paragraph 354) distinguish between levies "*which finance an energy policy objective*" (for which reductions are allowed) and levies "*which reflect part of the cost of providing electricity to the beneficiaries in question*" (for which reductions are not allowed). It is important to mention that CRMs have only become necessary due to the addition of stochastic RES units to the system (this is actually acknowledged in the existing EEAG, paragraphs 216 and 218) and the expedited removal of coal-based generation in many

³ [EWI](#), 2019. Electricity costs in the non-ferrous metal industry.

⁴ See [here](#) DG COMP EEAG Revision support study, May 2021

Member-States. Before the integration of RES units, CRMs were less necessary, hence the respective cost was non-existent. Therefore, the levies financing CRMs cannot be considered as levies that “*reflect part of the cost of providing electricity to the beneficiaries*”, but rather must be viewed as levies that “*finance an energy policy objective*” (i.e. the integration of renewables and the swift decommissioning of older, more polluting generation facilities). The Commission should therefore reconsider this element because CRMs are decarbonization levies and therefore targeted reductions should be foreseen, in line with the logic of the rest of Section 4.11 of the draft CEEAG.

- **Conditionality (par. 364-365):** Conditionality requirements should be fully aligned with the new ETS Guidelines for phase IV. This would minimize compliance costs for eligible sectors and the risk of repeated audits in the framework of different aid schemes. To minimise this potential distortion, we propose two solutions:
 - **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 the other framework.** 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.
 - **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.
- **Impact study:** Section 4.1 sets the framework for designing and approving of support scheme reducing greenhouse gas emissions. While it has certain very reasonable provisions, particularly those on the obligation to carry out a public consultation, the subsection 4.1.3.1 on the necessity of aid should be further improved. **Every support scheme eligible under this section must be accompanied by an impact assessment study, prepared by a neutral party, a study that would analyse the costs incurred by the support measure on other market participants and on consumers (households and industry).** Such a study would be a good governance tool and would contribute to the social acceptance of the support measures. Approval of support schemes must therefore be conditioned on the inclusion of an impact assessment study, prepared by a neutral party, a study that would analyse the costs incurred by the support measure on other market participants or on consumers. Such a study would ensure social acceptance of the support measure and it is a tool specific to good governance. This should be included as well in *section 4.13 Aid for studies or consultancy services on environmental protection and energy matters*.
- **Applicability & legal certainty:** 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 approval⁵ of

⁵ SA.50272 - French support scheme for renewable energy approved under EEAG on 27 July 2021

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.**

Minimum threshold & cumulative effect of all regulatory charges

The draft guidelines introduce a new provision asking Member States to inform about the cumulative effects of all eligible levies and asks stakeholders what should be the minimum cumulative level per MWh that is a necessary threshold to allow the reductions.

On this specific element, we would recommend the following:

- **The guidelines should reflect the fact that Aluminium is a global commodity, priced on international markets such as the London Metals Exchange (LME).** Aluminium producers' profitability depends on the LME price, and they cannot pass into product prices the higher costs they face due to changes in electricity prices following new charges introduced by EU Member States to incentivize decarbonization or other energy policy objectives⁶. For a primary aluminum producer, even 1 additional EUR/MWh can have a massive adverse impact on its competitiveness⁷.
- To this regard, any debate around a "minimum cumulative level per MWh" appears rather confusing, considering that targeted reductions and proportionality thereof is already ensured by the provisions of par. 360 of the draft CEEAG.

We therefore do not consider it necessary or appropriate to establish such a threshold. Should a minimum threshold be introduced, the CEEAG should explicitly clarify that Member-States shall retain their discretion to apply the GVA cap, completely overruling the minimum threshold, thus allowing for a sufficient cost reduction for the most affected sectors.

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.

Aid for the reduction & removal of GHG emissions through support for renewable energy

Regulating aid for the reduction and removal of GHG emissions encompassing all types of decarbonization technologies, including GHG emission reductions from industry, is a positive development.

However, the following improvements should be introduced:

⁶ For more on the « price-taker status » of aluminium producers see [here](#) p.18 of the report « *Metals for a Climate Neutral Europe* »,

⁷ [EWI](#), 2019. Electricity costs in the non-ferrous metal industry.

- Par. 100 of the draft CCEAG notes that aid for the decarbonization of industrial activities is not catered to support the electro-intensive nature of primary aluminium production. This is because the text clarifies (in fact as a safeguard against unwanted double support) that such aid is only allowed in cases which “reduce the emissions directly resulting from that industrial activity”. However, due to the electro-intensive nature of primary aluminium production, the vast majority of emissions from primary aluminium production (around 85% on average) are not direct, but rather indirect emissions.
- This wording would therefore seem to prohibit aid for the reduction of indirect emissions, thereby creating significant (and unjustified) distortions between different industrial sectors and across the aluminium value chain: industrial processes characterized by high levels of direct emissions (e.g. steel, cement, chemicals) would be eligible for decarbonisation aid. Electro-intensive industries and processes (such as aluminium primary production) would not instead be eligible for decarbonisation aid.
- Hence, reducing the indirect emissions from primary aluminium production (or, indeed, from other electrified processes) is not yet a solved exercise, and more efforts are needed in order to achieve this goal. Electro-intensive consumers still face significant barriers to cost-effectively consuming renewable electricity. So far, the only aluminium producers that have been able to sign Power Purchase Agreements (PPAs) for renewable electricity are found in the Nordics (due to the specific market conditions in this region, and especially the access to abundant hydropower generation). **Therefore, in order to facilitate the decarbonization of Europe’s primary aluminium sector, Section 4.1 of the CEEAG should clearly state that aid for industrial decarbonization should also support measures to reduce indirect emissions.**
- Further, **new aid instruments, such as Carbon Contracts for Difference (CfD), are welcome, but clarifications are needed with regards to how this instrument will be designed and the type of low carbon investments that could be covered.** These should support CfD schemes for the reduction of indirect emissions via consumption both RES and/or nuclear. Our understanding is that, as currently drafted, CfDs would only apply to the reduction of direct emissions, and would therefore be of limited relevance to the aluminium sector (as previously stated, the vast majority of emissions in the aluminium sector are indirect).
- Said approach is fully aligned with the Commission’s recent Commission’s communication for a ‘New Industrial Strategy’ and the Annex discussing ‘Clean Steel’. **As a “fit for electro-intensives” alternative, European Aluminium has already proposed⁸ the introduction of targeted schemes, aimed at addressing the specific risks and incremental costs (particularly shaping & firming costs) faced by the electro-intensive industries opting for RES PPAs.** To put this into context:
 - Steel producers may receive investment aid through national aid schemes for significantly improving the environmental footprint of their production facility, if the positive impact on environmental protection substantially exceeds, on the one hand, the level required by law or envisaged by Union objectives and, on the other hand, what the market itself would bring about. The aid must be limited to the extra environmental costs, comply with applicable maximum aid intensities and be subject to tendering. Similarly, under certain conditions, in particular, when competitive bidding takes place,

⁸ See [here](#) European Aluminium proposals to the EU’s fit for 55% package, May 2021

operating aid would be possible to partially compensate steel producers for the additional costs caused by the generation of renewable energy or energy sources, such as renewable/green hydrogen

- However, the support is limited to the difference between the costs for producing/purchasing grey energy and the costs for producing/purchasing green energy.” Applying this principle to electro-intensive, partial compensation of the incremental costs accompanying RES PPAs, e.g. shaping and firming costs, is therefore fully justified using the same logic.
- Our proposal consists of **the establishment of a massive pool of renewable electricity (the ‘Green Pool’), which would enable electro-intensive consumers to access the required volumes of decarbonised electricity at globally competitive prices.** Electro-intensive consumers participate in the Green Pool by adding new RES capacity to the electricity system (e.g. by signing a PPA with a RES producer for new installations)⁹. The electricity produced by these RES units is ‘pooled’ together by an aggregator 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 and/or shaping costs¹⁰ are borne exclusively by the aggregator, and the aggregator is compensated for a portion of such costs via public funding. **This would lead to a wide-scale decarbonisation of Europe’s electro-intensive industries but also the power sector, in an extremely effective and cost-efficient manner.**
- **Competitive bidding** (par.48): According to the guidelines, competitive bidding 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 & 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. **This exemption should be removed.**
- 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

⁹ Please find [here](#) the detailed green pool proposal by ENERVIS, March 2021.

¹⁰ Normal balancing costs are an integral part of the power system and are incurred regardless of RES capacity in the grid. Balancing costs, as in intraday trading, manual and automatic frequency reserves must be borne by each participant in the power market. Firming/shaping of production profiles, on the other hand, usually entails selling and buying power in the day-ahead market in order to match power delivered with power declared for consumption by the consumer. These two concepts should be distinguished in the green pool.

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 which 214 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.
 - A separate fall-back benchmark is needed for small recycling activities which are included in the ETS. For installations 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 or gas for remelting furnaces (like carbon tax in Norway or tax on gas consumption in Germany). **To incentivize the transition of the European low carbon economy by stimulating recycling, one should treat recycling activities differently from other activities.**

Aid for the improvement of the energy and environmental performance of buildings

Aluminium, due to its unique properties, it is a crucial material for decarbonizing the carbon footprint of the building stock. Therefore, the guidelines should provide more detail regarding the type of systems and products eligible for the measure, in particular:

- They should specify that **aid should be allowed for both in residential and non-residential buildings.**
- In par 116, it should be specified that **aid should also be allowed for renovation of building envelopes like window replacement or installation of ventilated cladding system, alongside investments in green roofs and equipment for the recovery of rainwater.**

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ANNEX – Case studies on impact of RES surcharges on Aluminium producers

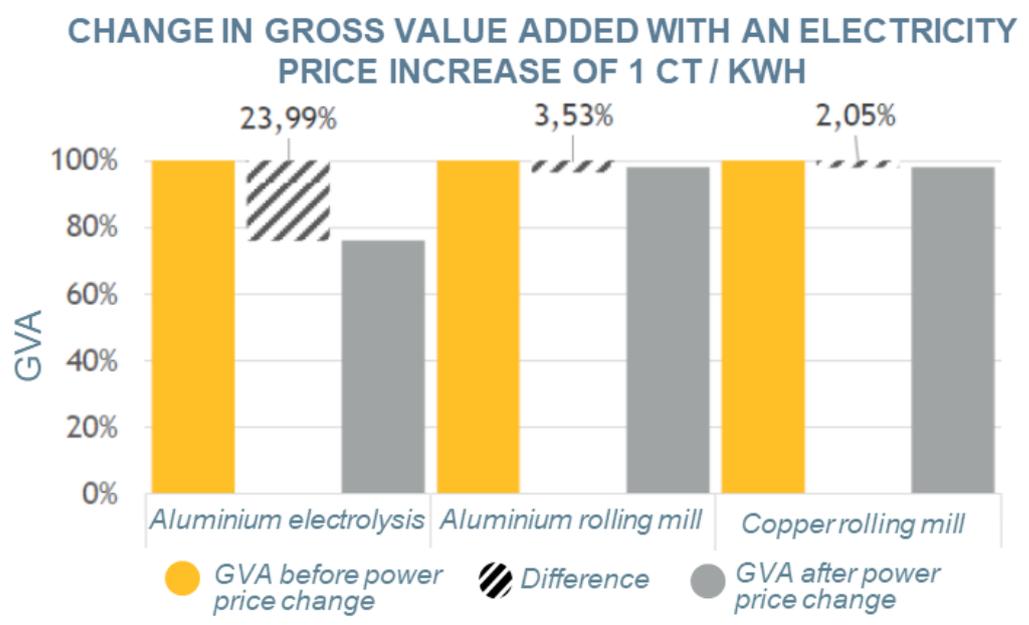
GERMANY

The RES surcharge in Germany is the Renewables Energy Source Act (EEG) which came into effect 20 years ago and is responsible of significant growth in onshore wind, solar PV and biogas by establishing grid priority for the power sources and guaranteeing them generous feed-in tariffs. Existence of reductions for Energy Intensive users has not led to detrimental effect to the law. Overall, the EEG in Germany is regarded nationally and internationally as an innovative and successful energy policy measure. The EEG rate to be paid by industry has evolved over time from 20,5 €/MWh in 2010 to 67,56 €/MWh in 2020, which makes the price of electricity in Germany one of the highest in the world.

A 2019 study by EWI¹¹ analysed data on the effects of an increase in electricity prices on the gross value added (GVA) of the respective companies and the importance of the existing regulatory reliefs for hyper-electro intensive companies.

The analysis showed that a **small increase of 1 ct/KWh in electricity prices could reduce up to 24% of the GVA of aluminium companies** (i.e. 15 Million

Euro) while **the GVA of the entire manufacturing industry would decrease by an average of 0.5%.**

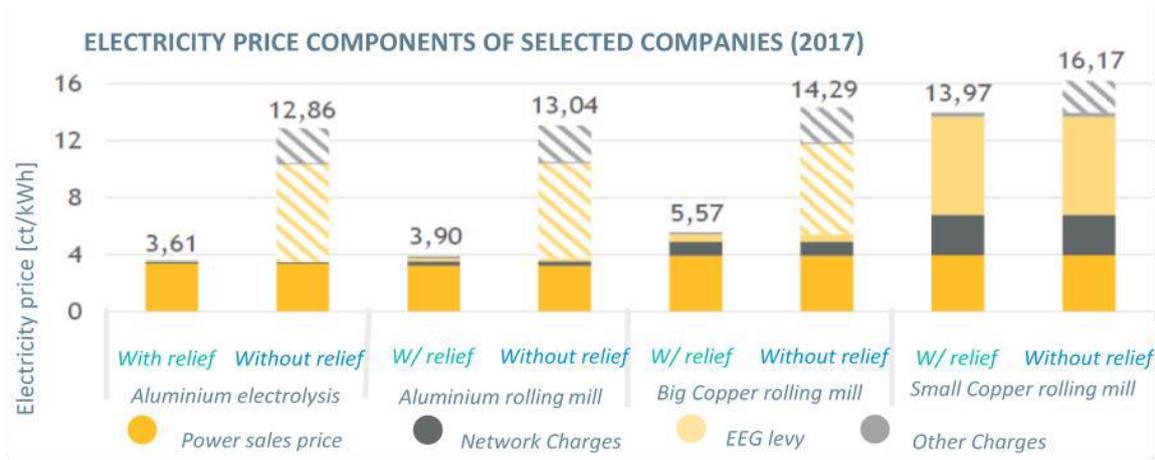


The electricity-cost intensity of the metal industry is the highest in with an average of 14.5%. The paper industry ranks the second at 9.5% electricity-cost intensity¹². The aluminium industry is therefore the most affected one by changes to electricity costs and electricity prices. It is also very important to mention that these percentages reflect the average intensity across the entire sector, whereas specific segments of the value chain (especially primary production) have an even higher electricity-cost intensity.

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.**

¹¹ 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>

¹² See graph 5 in page 13 of the 2019 EWI report



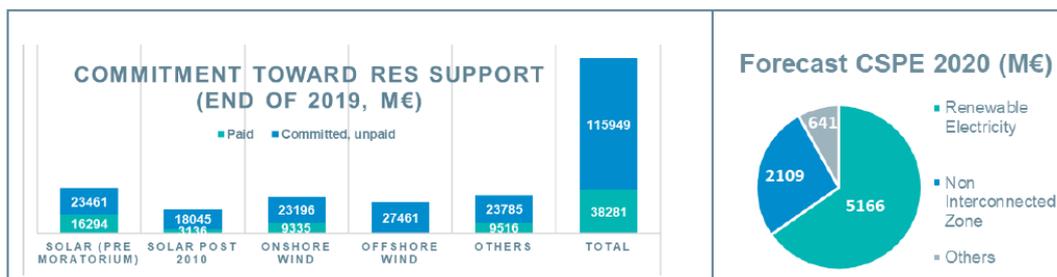
As reflected in the graph above, in Germany the costs for having to pay all regulatory price components would:

- For an aluminium electrolysis plant: completely erode its GVA and even turn it negative, reaching -75 million Euro. This plant would **thus be unprofitable and would be forced to cease its operations**;
- For a large aluminium rolling mill: The GVA would drop by almost 58 M€ (32%).

Furthermore, 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).¹³

FRANCE

Without RES/PSO surcharge caps, French industry would have to stop their operations due to potential increased charges of about 110% of its EBITDA. The figure below shows that Commitment for RE support of up to 149,080 M€ as of end of 2019, with 75% remaining to be paid¹⁴.



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.

¹³ Aurora Energy Research, 2019. Auswirkungen der Schließung von Kohlekraftwerken auf den deutschen Strommarkt. Available [here](#).

¹⁴ Source: [Annual Report CGCSPE, 2019](#)

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.

GREECE

Aluminium producer Mytilineos is Greece's largest electricity consumer. Without the possibility of RES surcharge reductions, total production costs would increase by 17% or €47,5 million annually.

In 2017, the average all-in electricity price for EU smelters was 39.6 €/MWh (including energy and regulatory charges¹⁵). Power costs for smelters in Greece represent a far higher share than the global average (33%), despite the smelter's high efficiency. **Without the EEAG reduction**, this figure would rise above 45%. On this basis **the Greek aluminium smelter would positively shut down**.

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 would translate into an additional cost of €47.5m each year, or an incredible increase of approximately 17% in total production costs, which no company exposed to global competition could survive.

ROMANIA

Aluminium producer ALRO is Romania's largest electricity consumer. Without the possibility of Green Certificates partial exemption, the total RES cost incurred by ALRO 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 PwC¹⁶ 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 ALRO 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 2015-2031.**

¹⁵ For confidentiality reasons, we refer to the Commission's latest report on Energy Prices and Costs, which Mytilineos contributed towards

¹⁶ PwC Romania, 2019. Impact Study "Analysis of the mechanism for exempting the electro-intensive industrial consumers from the payment of green certificates": Attached to our member's reply – ALRO – to the EEAG Fitness Check Stakeholder Consultation back in 2019)

