# Compensation for Indirect Costs of the EU ETS: Assessment of Draft State Aid Guidelines

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# Presentation Outline

In the next 7-10 minutes, I will:

**1**

Explain why non-ferrous metals are so exposed to carbon leakage due to indirect costs of the ETS

**2**

Give our assessment of what works well in the draft Guidelines and what should be changed

**3**

Offer a more detailed assessment on 2 key issues in the Guidelines; level of aid and eligibility for compensation

**4**

Recommendations on what to improve between these draft Guidelines and the Final Guidelines in Q3 2020

# 1. The Non-Ferrous Metals Sector: 3 Key Facts

# 3 key facts about non-ferrous metals production in Europe

## Electro-intensive

***One of Europe's most electro-intensive industries***

13 **Al** Aluminium — Electricity = ***38-45%*** of production costs

30 **Zn** Zinc — Electricity = ***40%*** of production costs

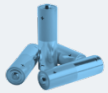
14 **Si** Silicon — Electricity = ***35-40%*** of production costs

## Rising demand being replaced by imports

**Metals demand increase by 2050 ***

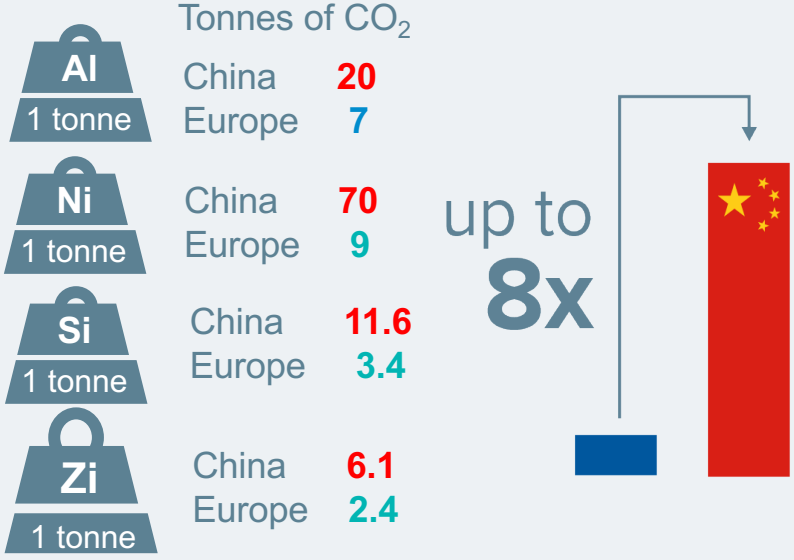

**+300%**


**+200%**


**+1000%**

**BUT**

**European production is being replaced by imports with higher carbon footprint ****




## Price-taker

As price-takers, we cannot pass on any regulatory costs to the customer


*Metals priced globally by London Metals Exchange*

*Electricity costs vary from country to country*

=

**Automatic competitive disadvantage on global market**



* Source: World Bank 2017

** *IES-VUB, 2019: Metals in a climate-neutral Europe*

# Massive exposure of metals with increasing ETS price

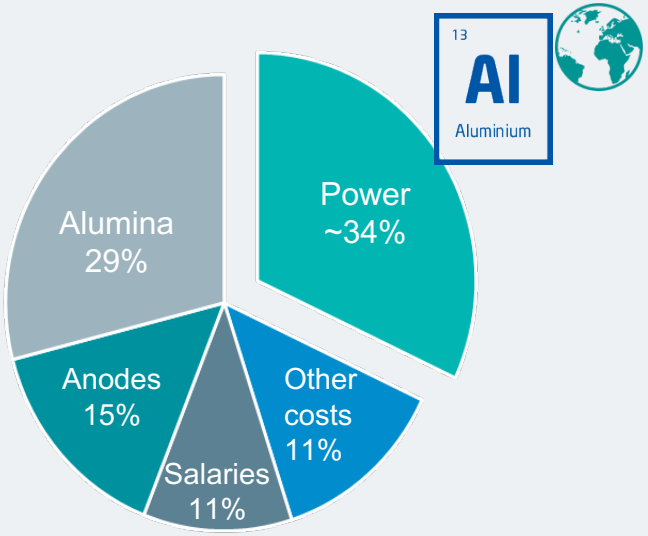
13 Al Aluminium

Electricity costs = **38-45%** of production costs, decisive for investments

30 Zn Zinc — Electricity = **40%** of production costs

14 Si Silicon — Electricity = **35-40%** of production costs

Other Energy Intensive Industries — Electricity < 10% of production costs *




## Indirect costs =

**2017** 4% of Al sales price

*at a CO2 price of* ***€6***

**Phase IV** 19% of Al sales price

*at a CO2 price of* ***€30***

- 19% cannot be passed on to the customer (Price Taker)
- 19% **sales price** is far above profitability ratios

The result is **further carbon leakage**



** with the exception of chlorine, source: IES-VUB, 2019. Metals in a climate-neutral Europe*

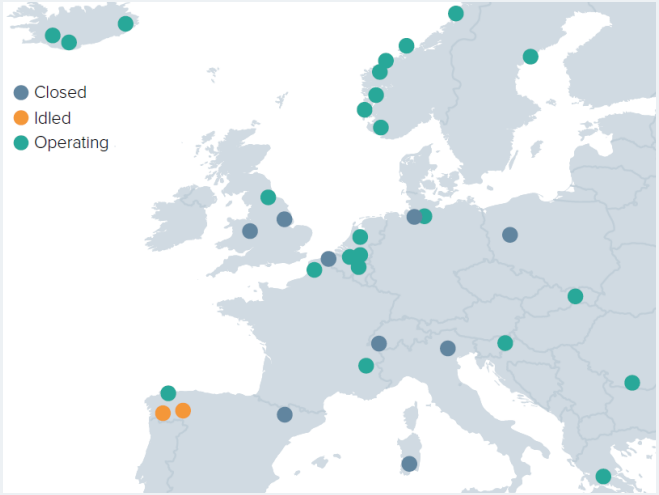
# A sector already experiencing carbon leakage

***The European NFMs sector is being heavily impacted by global competition imbalances:***

## 10/35

*of European aluminium smelters closed since 2007*

**BUT** *European production being replaced by (+ CO2-intensive) imports & investments being redirected to non-EU areas*




## Consequence:

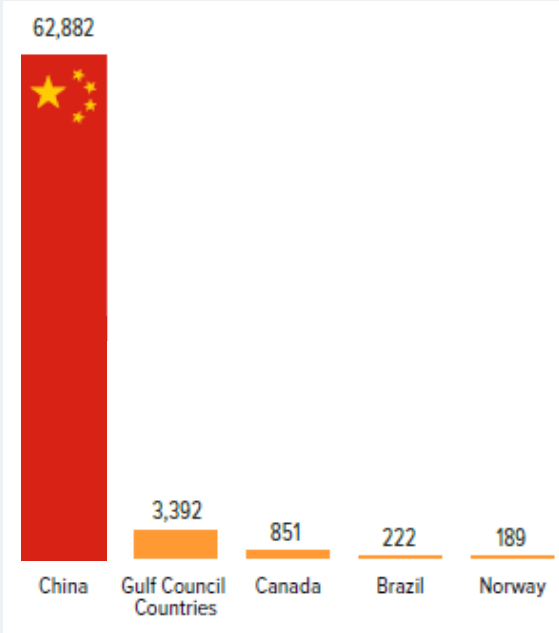
*Overcapacities & high export increases to Europe*

*Chinese Market Dominance*


## USD 63 bn*

*Direct government subsidies to 5 Chinese aluminium producers (2013-2017)*

*= **85%** of all support in the global aluminium sector*






* OECD, 2019: *Measuring distortions in international markets. The aluminium value chain*
** *IES-VUB, 2019: Metals in a climate-neutral Europe*

# 2. Our Assessment of the Draft Guidelines

## What works and what should be changed

# The Good, the Bad and the Undecided

## *Positive Elements*

1. **Additional protection for most exposed sectors:**
   Recognition that for most electro-intensive "the aid intensity of 75% may not be sufficient"
   - ✓ Introducing the possibility to limit indirect costs to a % of GVA
2. **Compensation based on actual production**
   (Not historical)

## *Negative elements*

1. **Price Taker criterion for eligibility:**
   Need to recognise that price-taker sectors can't pass on their cost
2. **Impact on electricity prices & geographical regions:**
   Markets should be made larger not smaller and electricity market models used

## *Undecided*

1. **GVA cap value + how to qualify**
2. **Pass through factors**
3. **Benchmarks values (Although methodology the same)**

# Improved understanding of electricity markets compared to 2012 Guidelines

We see an improvement and a better understanding of how electricity markets work and the role of indirects compensation, including:

## No mention of degressive aid

*This is accurate as degressivity doesn't incentivize efficiency. The draft correctly notes that updating of the benchmark values & CO2 pass-through factors will reflect technical progress*

## No mention there might be some contracts not impacted by CO2

*The market reality is that all contracts are affected by CO2 which is based on market prices (Marginal pricing) and not generation costs (Except for Iceland).*

## Incentive effect:

*Left out decreasing aid will incentivize going from "grey to green power". Reality: power will decarbonize (Direct effect of ETS on power generation), indirects compensation doesn't impact this*

## Market distortions:

**Today 85% of EU GDP is compensated. The real distortion is between EU and non-EU producers (Who have no ETS and are largely subsidized).*

***According to the COM's 2019 EU ETS rapport the 'Member States in which compensation is given account for some 70% of EU GDP'. After publishing this report, Italy has come up with a compensation scheme. Thus, the 70% of GDP must be significantly higher".**

# Detailed Assessment of the Main Elements

1. Level of Aid & carbon leakage risk
2. Eligibility

# 1. Level of Aid & Minimising Carbon Leakage

# Electricity Cost Higher for production of primary non-ferrous metals compared to others…

**Table 2 Energy prices and costs in EU energy intensive sectors – Simple averages, 2016**

| Sector | Price of electricity (€/MWh) | Cost of electricity** (€/MWh) | Cost of electricity as a share of production costs (%) | Price of natural gas (€/MWh) | Cost of natural gas as a share of production costs (%) |
|---|---|---|---|---|---|
| Bricks and roof tiles | 86.3 | 79.3 | 5.4% | 25.1 | 13.6% |
| Wall and floor tiles | 99.2 | 88.1 | 5.2% | 24.1 | 10.4% |
| Glass tableware | 92.4 | 85.8 | 6.2% | 23.8 | 7.5% |
| Packaging glass | 75.4 | 68.9 | 7.5% | 22.3 | 12.2% |
| Primary aluminium | 39.4 | 37 | 41.6% | 20.9 | 1.3% |
| Secondary aluminium | 97.6 | 93.9 | 6.1% | 24.4 | 7.9% |
| Downstream aluminium | 80.0 | 80.0 | 1.3% | 24.7 | 0.6% |
| Steel EAF | 53.7 | 50.6 | 9.8% | 19.2 | 2.5% |
| Steel BOF* | 57.6 | 52.1 | 3.3% | 17.2 | 1.1% |
| Nitrogen fertiliser | 66.5 | 60.3 | 6.6% | 18.8 | 52.1% |
| Refineries* | 69.0 | 62.9 | 0.8% | 20.3 | 1.1% |

*Note: *In these two sectors, fuels other than electricity and natural gas play a significant role; therefore, the share of these fuel costs out of production costs is not representative of the overall energy intensity of the production processes involved. **The cost of electricity takes also into account reimbursement, self-production and flexibility schemes.*

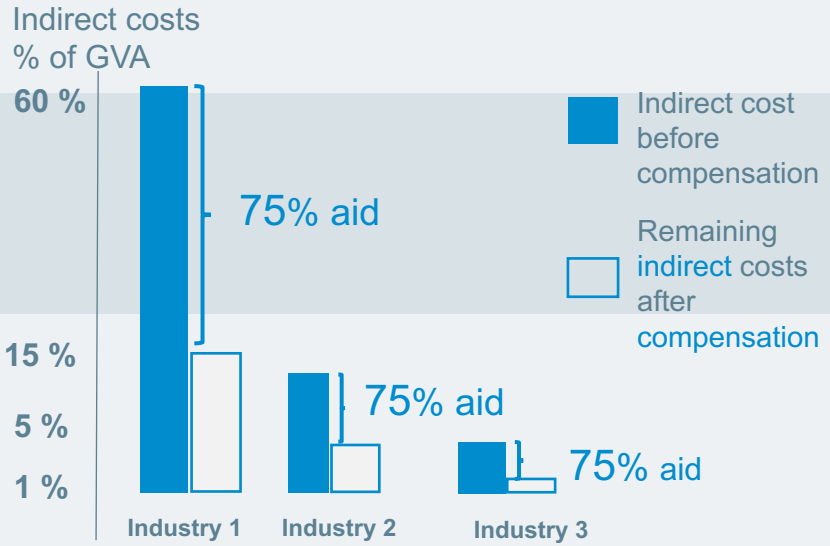
Source: CEPS

***In order to ensure equal treatment, the Guidelines need to ensure that undertakings face similar regulatory costs after compensation***

# 75% Aid to all eligible discriminates against the most exposed

**A partial set at 75% compensation will not minimize the risk of carbon leakage for Europe's most electro-intensive industries…**

***Indeed, p. 30 correctly recognizes that it leads to huge differences between undertakings after compensation is granted.***




**Since eligible undertakings have different electricity intensity*, the impact of indirect cost on production costs and hence the carbon leakage risk is different from sector to sector (on prodcom 8 level).**

***Since, the main objective of the compensation is to minimize the risk of carbon leakage, a more sophisticated and correctly calibrated methodology is needed***

***Therefore, the Guidelines allow for more targeted compensation, at the undertaking level, in order to reduce the risk of carbon leakage for the most-exposed***



**CEPS report*

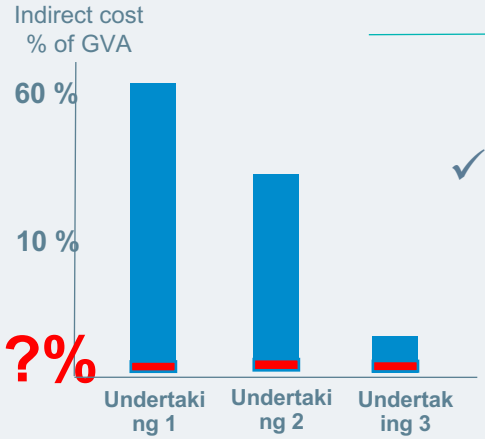
# A Hardship Clause for most exposed at undertaking level

***P. 30 is similar to the EEAG p. 188 & 189 for reduction of the industry's support to renewable investments:***

> 30. Given that for some sectors the aid intensity of 75 % might not be sufficient to ensure that there is adequate protection against the risk of carbon leakage, when needed, Member States may limit the amount of the indirect costs to be paid at undertaking level to […] % of the gross value added of the undertaking concerned in year t. The gross value added of the undertaking must be calculated as

***But - No thresholds are set in the draft Guidelines. We would suggest:***

- ✓ Eligibility for extra aid must be on **undertaking level**, not sector, and should for undertakings in sectors eligible for aid be based on the share of ***indirect cost exposure*** measured as **electro-intensity of at least 20%** (definitions see EEAG).




- ✓ The level of extra aid should be defined as in EEAG. Member State can compensate in addition to maximum aid in §23 to limit the indirect cost to **0,5% of GVA.**

# Encouraging electrification for decarbonisation

## Indirects compensation and the EU's 2050 agenda go hand in hand

### THE POTENTIAL FOR ELECTRIFICATION OF INDUSTRY

The **electrification of industry** is key to reach our 2050 objectives

Having electrified our processes, non-ferrous metals are the **frontrunner**

Other sectors (i.e. steel & chemicals) may follow and electrify

### NEED TO SHOW THAT THOSE ALREADY ELECTRIFIED CAN SURVIVE

**But…**

**They will not follow if the most electro-intensive industries are driven out of Europe due to high regulatory costs**

***Therefore we need put in place an adequate compensation system for most exposed***

### POSITIVE COMPETITIVENESS & CLIMATE IMPACTS

*With an adequate indirects compensation* ***the most electro-intensive EU production can survive***

+

***Encourage*** *other industry sectors to electrify their processes*

# 2. Eligibility

# Eligibility criteria

**We agree that the list should be established based on to economic situation of the relevant sectors, with 2 factors:**

1

**Exposure to international commercial activity**

X

2

**Exposure to indirect ETS costs being most relevant**

However, exposure to international activity **needs to factor in the 'price-taker criterion'**. The consultation asked lots of questions on whether a sector is a price-taker but this has not been factored into the Commission's calculations. **Should be addressed**

# Conclusion


Al Aluminium
Cu Copper
Ni Nickel
Pb Lead
Zn Zinc
Au Gold
Ag Silver
Pt Platinum
Sb Antimony
Be Beryllium
Si Silicon
Co Cobalt
Mo Molybdenum
V Vanadium
Sn Tin
Pd Palladium
Ru Ruthenium
Re Rhenium
Os Osmium
Ir Iridium
W Tungsten
Ta Tantalum
Ge Germanium
Se Selenium
Ga Gallium
Cr Chromium
Mg Magnesium

# Assessment of the Draft Guidelines Compensation Formula

**ELIGIBILITY**

**AID INTENSITY** x **EMISSION PASSTHROUGH FACTOR** x **EMISSION PRICE** x **ACTIVITY LEVEL** x **BENCHMARK FOR POWER CONSUMPTION**

Correctly based on exposure to international trade & indirect costs. However, price-taker criterion needs to be integrated in order to have an accurate assessment

A GVA cap at undertaking level is needed to address this. It should be based on an electro-intensity of at least 20%, as in the EEAG

Regions should be bigger & electricity market models used.

Reflects correctly MSs budgeting need and ensure equal treatment of all purchasing strategies

Changed from historical to actual production: Gives incentives for growth and will ensure no under and overallocation.

Methodology correct, values to be decided

→ To be amended

→ Correct methodology (values to be regularly updated in some cases)