

Revision of the state aid guidelines in the context of the EU ETS: issues and options

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Agenda

- Background and quick recap
- ERCST *draft feedback to consultation*
- Feedback from various stakeholders
- Discussion and Q&A

Background

- We will focus on indirect cost compensation
 - Combat carbon leakage
 - Voluntary Member State level schemes to be assessed by EC
 - EU level guidelines that MS must apply
 - To limit risk of distortion to EU internal level playing field
 - Member States can implement more stringent restrictions than State aid guidelines
- We see four main issues that need to be balanced:
 1. Carbon leakage risk mitigation (*Raison d'être*)
 2. Limit risk of overcompensation and potential windfall profits
 3. Limit risk of internal market distortions within, and between, sectors
 4. Incentivize cost efficient decarbonization

Background: direct vs. indirect cost

- Similar effects on competitiveness
- Dealt with differently
 - Direct cost
 - Free allocation
 - Centralized EU approach
 - Full compensation (at benchmark level)
 - Based on carbon costs (direct + indirect) in Phase 3
 - Indirect cost
 - Cash
 - Fragmented and voluntary MS approach with EU ground rules
 - Compensation limited and degressive (at benchmark level)
 - Based on indirect costs

Background – Phase 3 EU ETS

Compensation and guidelines have different goals

- Indirect cost compensation is meant to tackle carbon leakage concerns
- State aid guidelines themselves are meant to address competition concerns and potential internal market distortions

Background – Phase 3 EU ETS

- Eligible sectors are defined using criteria
- Quantitative criteria for automatic addition to list
 - Intensity of trade with third countries is above 10%
 - Indirect costs would lead to a substantial increase in production costs (as a proportion of the gross value added) of at least 5%
 - Both need to be fulfilled
- Qualitative criteria for ‘borderline sectors’
 - Sectors with missing or low quality data
 - Sectors ‘considered to have been insufficiently represented by qualitative assessment’

Background – Phase 3 EU ETS (2)

- Qualitative criteria
 - Indirect costs were above 2,5% of GVA at sectoral level
 - The sector deemed unable to pass on indirect costs to customers without losing significant market share to third countries
 - translated as a trade intensity of higher than 25% and proof that the sector concerned was a ‘price-taker’
 - Fuel and electricity exchangeability for products in the sectors was also taken into account
- Not stated in guidelines which sectors were included through quantitative/qualitative assessment

Background – Phase 3 EU ETS (2)

- 13 sectors and 7 subsectors were eligible
 - Includes various non-ferrous metals, textiles, chemicals, paper, basic iron and steel, plastics, and a number of mining sectors

Aluminium	Mining of chemical and fertiliser mineral	Other inorganic chemicals	Lead, zinc and tin
Leather cloths	Basic iron and steel and of ferro-alloys, including seamless steel pipes	Paper and paperboard	Fertilisers and nitrogen compounds
Copper	Other organic basic chemicals	Spinning of cotton-type fibres	Man-made fibres
Mining of iron ores	Low-density polyethylene	Linear low-linear polyethylene	High-density polyethylene
Polypropylene	Polyvinyl chloride	Polycarbonate	Mechanical pulp

Background – Phase 3 EU ETS (3)

- In 2018: 10 Member State Schemes (436 million euros)
- In 2017: 694 million euros in total

Member State	Compensation paid for 2016 (€ million)	Auction revenues 2016 (€ million)	Percentage	Compensation paid for 2017 (€ million)	Auction revenues 2017 (€ million)	Percentage
Flanders	46.75	56.92	82.14%	31.72	76.14	41.67%
Netherlands	53.59	142.61	37.58%	36.9	190.71	19.35%
Germany	288.72	850.39	33.95%	202.21	1,146.82	17.63%
UK	19	424.33	4.48%	17.16	566.48	3.03%
Spain	71.44	369.46	19.34%	66.64*	493.55	13.50%
France	135.15	234.68	57.59%	98.73	313.40	31.50%
Slovakia	10	65.05	15.37%	10	87.06	11.49%
Finland	37.91	71.22	53.22%	26.75	95.26	28.08%
Latvia	1.04	11.5	8.70%	0.24	15.39	1.54%
Greece	12.4	148.05	8.38%	12.44	198.03	6.28%

Source: 2019 State of EU ETS Report (ERCST, I4CE, EcoAct, ICIS and Wegener Centre)

- In 2018: two additional Schemes approved (LU and Wallonia)

Background – Revision of guidelines

- Revision NOT review: Guidelines could change significantly
- However, some things set in stone in ETS Phase 4 Directive
 - MS ‘shall seek’ to use no more than 25% of auctioning revenues or must publish a report explaining why they exceeded that percentage
 - Ex ante (sub-)sectoral benchmarks to be used for calculation of carbon leakage risk
 - Benchmarks based on electricity consumption per unit of production using most efficient available technologies and CO2 emissions of relevant EU electricity production mix
 - EC to assess impacts of indirect cost compensation on internal market in annual ETS report
 - And ‘where appropriate’ recommend measures to limit such effects

Background – Revision of guidelines (2)

- EC Criteria for the revision
 - Effectiveness
 - Efficiency
 - Relevance
 - Coherence
 - EU added value of the guidelines
- However, how these criteria are defined and used is unclear
- New guidelines to be ready by Q3 2020 and enter into force by start Phase 4
- Draft guidelines to be discussed in MS consultation in Autumn 2019

Background – Revision of guidelines (3)

- Two public consultations
 - Consultation of Interested sectors (Finished on April 9th)
 - Results not public
 - Public consultation (deadline May 16th)
- Future work ERCST
 - May: Consultation reply and paper on Issues and Options
 - September 19th: roundtable
 - Discussion of draft guidelines

ERCST draft feedback to consultation

- Present our most relevant (*draft*) replies to consultation questions
- Will go through section A and section B of public consultation

Main principles for indirect cost compensation

- ***Effective*** carbon leakage protection for sectors that ***need*** it
- ***Transparent*** assessment of leakage risk
- ***Dynamic*** cost compensation
- Need for mid-Phase ***review***
- MS compensation ***as similar as possible***
- ***Symmetry*** with free allocation rules

Internal market distortions and level playing field

Question A.6:

“Based on your experience, has a compensation of indirect emissions costs created market distortion?”

Internal market distortions and level playing field

- Voluntary nature could create distortions between:
 - Same sector in different EU countries (problematic)
 - Substitutes
- One of the major issues with current indirect cost compensation
 - Many stakeholders are mostly concerned with extra-EU competition, not internal distortions
- Internal market distortions are set to increase commensurate with EUA price, if structure of state aid schemes does not change significantly

Internal market distortions and level playing field

- Distortions do not necessarily support low-carbon, energy efficient products or energy efficient production technologies
 - Example:
 - Country A with relatively energy efficient sector 1 might not feel need for granting state aid to sector 1
 - Indirect costs not deemed critical to survival
 - Country B with relatively energy **inefficient** sector 1 might feel need for indirect cost compensation
 - Indirect costs deemed critical to survival
 - Could end with sector being compensated in inefficient countries, but not in efficient countries
 - Potentially making inefficient installations more competitive

Internal market distortions and level playing field

- Three options to minimise distortions, which can be combined:
 1. Hard cap on state aid
 - Not linked to auction revenues, but linked to importance of energy intensive industries in MS GDP or similar metrics
 2. MS to give mandatory minimum, but free to go beyond that
 3. Ensure coherence between MS schemes, so sectors face same treatment irrespective of MS where they are active

Interactions with renewable energy

Question A.13:

“Point 11 of the 2012 ETS guidelines states that “in case of electricity supply contracts that do not include any CO2 costs, no State aid will be granted”. Has this rule affected the potential for producers of renewable energy to sell their output through Power Purchase Agreements?”

Interactions with renewable energy

- Current guidelines state that no state aid can be granted ‘in case of electricity supply contracts that do not include any CO2 costs’
 - If electricity prices are set through merit order, then 100% renewable contracts also pass through ‘opportunity’ CO2 costs
 - As do 99% renewable energy contracts
 - Potential for renewable electricity (and storage) to play greater role as marginal plants by 2030
 - Some anecdotal evidence that this has disincentivized industry to engage in 100% RE contracts as they miss out on state aid
 - Perverse incentive that needs to be addressed!

Interactions with renewable energy

- Two options to address this
 1. Contract by contract assessment of pricing and carbon component by regulators
 - Unlikely to be popular among both energy suppliers and industrial customers
 - Significant administrative burdens
 2. Allow state aid compensation for all energy contracts

Usefulness of guidelines

Question A.14:

“In your view, was it useful to have ETS State aid Guidelines compared to the counterfactual scenario where - in the absence of ETS State aid Guidelines - national measures to compensate for indirect emissions costs would have had to be designed by Member States without any guidance from the Commission?”

Usefulness of guidelines

- Yes the guidelines are useful, and most likely led to a better outcome than no guidelines
 - Minimum of coherence between MS schemes
 - Sectors
 - Size of state aid
 - Mitigated competitive distortions
 - Limited risk for ‘race to the bottom’ (or to the top – depending on your point of view) between MS using this instrument for competitiveness policy

Other comments on Section A

Question A.15:

“Are there any other observations or comments as regards both the eligibility criterion and/or the formula used in the 2012 ETS Guidelines that you would like to make?”

Other comments on Section A

- Necessity of limiting qualitative assessment as much as possible and making it as transparent as possible
 - Implies significant efforts with respect to data gathering
- Tiered list of sectors remains interesting
 - Difficult to argue that all sectors face same risks
 - Was considered and rejected for direct costs
 - If symmetry with free allocation is a major consideration -> difficult to defend

Eligibility criteria

Question B.16:

“How should the list of eligible sectors be established for the next trading period?”

- o The list should remain the same as the one currently applicable under the 2012 ETS Guidelines*
- o The list should be identical to the Carbon Leakage List for the period 2021- 2030*
- o The list should follow the same methodology as the Carbon Leakage List for the period 2021-2030 but only considering indirect emission intensity*
- ⊖ **The list should be established through an adaptation of the quantitative criteria used to determine the Carbon Leakage List for the period 2021-2030***
- o Other*
- o I do not know*

Eligibility criteria

- Adaptation should be based on making list as focused as possible
 - Only sectors for whom indirect costs are a matter of survival
 - How should ‘matter of survival’ be defined and operationalized?
 - Limited financial resources to be shared between fewer sectors
 - Less potential for overcompensation and undercompensation
 - Less potential for MS to further limit sectoral scope of national schemes and linked distortions to internal market
 - Could be done by using Prodcom for definition of sectors
 - NACE as fall back position
- Supported by two principles for revision
 - Effectiveness and efficiency

In the end it will be a political choice!

Additional sectoral eligibility criteria

Question B.17:

“In your view, should the compensation be made conditional on?”

- o The energy efficiency achieved (volume of production/MWh)*
- o The reduction of energy consumption (reduction of MWh)*
- o The participation in a national energy efficiency programme, where such programme exists*
- o **It should not be made conditional***
- o I do not know*

Additional sectoral eligibility criteria

- We do not see any good examples of additional criteria
- Conditionality on energy efficiency efforts should be avoided
 - EE is already covered by a Directive
 - Sectors already have strong incentives to invest in EE
 - Will penalise those that invested heavily in the past

Setting of key variables

- Compensation for installations is limited by the ‘maximum aid intensity’

$$Amax_t = Ai_t * C_t * P_{t-1} * E * BO$$

Amax_t is the maximum aid intensity in year t

Ai_t is the aid intensity at year t, expressed as a fraction which decreases over time and is set at 75% for 2019-2020

C_t is the applicable CO₂ emission factor (tCO₂ /MWh) (at year t);

P_{t-1} is the EUA forward price at year t-1 (EUR/tCO₂);

E is the applicable product-specific electricity consumption efficiency benchmark; and

BO is the baseline output.

(for those not covered by fall-back benchmarks)

- Continued use of (comparable) function seems likely
 - However, variables might need to be revised and adapted

Aid intensity

Question B.18:

“Based on your experience, what should be the aid intensity at the beginning of the next trading period?”

- o 75%, as it is today*
- o Lower than 75%*
- o Lower than 75%*
- ⊖ **Higher than 75%***
- o A variable aid intensity depending on trade intensity and/or the beneficiary's Gross Value Added (GVA), as defined in Annex 4 of the Guidelines on State aid for environmental protection and energy 2014-2020*
- o I do not know*

Aid intensity

- Current formula for ‘maximum aid intensity’ sets that compensation cannot be given at 100% level
 - Ai_t currently set at 75%
- Should be 100% at benchmark level and remain stable
 - No clear reason for non-symmetry with free allocation approach
 - Lack of incentives for energy efficiency?
 - State aid guidelines are not the best, nor only, tool to incentive energy efficiency

Degressivity

Question B.19:

“Based on your experience, should the aid intensity be degressive over the next trading period?”

- Yes
- No**
- I do not know

Question B. 20:

“How should the degressivity trend evolve in the next trading period?”

- It should remain the same as in Phase 3 (i.e. flat in years #1,#2 and #3, -5% in years #4, #5 and #6, -5% in years #7 and #8)
- The trend should be less degressive
- The trend should be more degressive
- The aid intensity should remain stable over the period, but the electricity consumption efficiency benchmarks should be updated more frequently to maintain the incentive to achieve cost-effective decarbonisation of the economy**
- I do not know

Degressivity

- Degressive aid intensity variable is not the right way to bring degressivity into the state aid guidelines
- Degressivity can be brought in through other variables
 - Tighten benchmarks yearly (see free allocation rules)
 - Regularly revisit CO₂ intensity factors
- Aid intensity variable should be dropped from formula

Product-specific electricity consumption efficiency benchmark

Question B.21:

“How in your view should the efficiency benchmarks be updated in order to incentivise energy efficiency investments by beneficiaries?”

Question B.22:

“How often should the efficiency benchmarks be revised?”

- o Never, they would be defined only once in the beginning of the trading period*
- o Every year*
- o **One mid-term review in 2025***
- o I do not know*
- o Other option: please specify*

Product-specific electricity consumption efficiency benchmark

- Use same system as free allocation rules
 - Average of 10% best producers
 - Use annual reduction rates for each benchmark
 - Implies annual change to the benchmarks
 - Mid-term review for assessing process and methodologies
 - Incentives industry to reach (or best) the benchmark

- Limit use of fall-back electricity consumption efficiency benchmark as much as possible

CO₂ emissions factor

Question B.23:

“Which type of CO₂ emission factor should be used for the next trading period?”

- An EU-wide CO₂ emission factor*
- A regional CO₂ emission factor**
- A national CO₂ emission factor*
- I do not know*

Question B.24:

“In case of a regional CO₂ emission factor, how should the relevant regions be established?”

- Based on market coupling**
- Based on bidding zones*
- On another basis*
- I do not know*

CO₂ emissions factor

Question B.25:

“Do you consider appropriate and feasible to improve the current simplified marginal cost approach and determine the CO₂ factor not by referring to the general [fossil-fuelled] electricity mix of a given area but by analysing who has been the actual marginal power plant in the relevant electricity market as observed over the entire year t-1? If so, which data sources should be taken into account?”

- Yes, it would be appropriate and feasible**
- No, it would not be appropriate nor feasible
- I do not know

CO₂ emissions factor

- Use regional factors
 - Logical to combine marginal price setting with regional interconnections
- Needs flexibility
 - Annual updates
 - Is implied to change over time in original formula (C_t)
 - Was however kept constant
- Not only look at fossil fuelled generation
 - Extreme scenario: last coal-fired plant in Central-West Europe sets CO₂ emissions factor for entire region (Austria, Belgium, France, Germany, Luxembourg and Netherlands)

CO₂ emissions factor

- How can we bring the emissions factor closer to the real world?
 - ‘Marginal’ regional emissions factor?
 - Determined by importance of various technologies in electricity price setting
 - + Increasing importance of RE and storage can be taken into account
 - - Significant administrative burden to update frequently
 - - Lacks long term certainty and predictability for industry
 - Revision of regions to account for new interconnections?

EUA prices

Question B.27:

“Currently, the maximum amount of compensation is calculated inter alia on the basis of the forward price of the European Union Allowances (EUA) in the year $t-1$. Do you consider this an appropriate proxy or should alternatives be considered?”

- o Yes, this is an appropriate proxy*
- o **No, this is not an appropriate proxy and alternatives should be considered***
- o I do not know*

EUA prices

- Two options
 1. Use weighted 3-year average of forward prices
 - Could address partially the potential for under- and overcompensation of using one year forward prices
 - Fit more closely with hedging strategies and electricity price setting
 2. Use average EUA prices in the year for which compensation is granted
 - Decreases the difference between actual EUA prices and level of compensation

Baseline output

Question B.28:

“What type of data should be used to determine the baseline output in the calculation formula?”

- o Historical output determined ex ante over a sufficiently long and representative reference period*
- o Actual output determined ex post*
- o **Historical output corrected by the average of the actual output of the last 2 years, as established by Article 10a) of the ETS Directive for the allocation of free allowances***
- o Other*
- o I do not know*

Baseline output

- Activity levels should be made as dynamic as possible
- Same system as under discussion for dynamic free allocation due to production level changes
 - Rolling two-year average changes by 15% compared to historic activity levels

Final comments

Question B.29:

“If there anything else you would like to say which may be relevant for the evaluation and impact assessment of the ETS Guidelines, feel free to do so.”

Final comments – main comments

- **New schemes need to be more dynamic**
 - Revision of the eligible sectors
 - Automatic update of variables in formula
 - Benchmarks, CO₂ intensity factors, output levels
 - Mid-term review of EU ETS and MSR
 - Why not for state aid guidelines (and free allocation)?
 - Long term predictability if review criteria are transparent
- If formula and variables are not set in stone, necessity for reviews decreases

Final comments – main comments (2)

- **New schemes need to be more dynamic**
 - Indirect cost compensation to be ‘kept under review in light of climate policy measures in other major economies’
 - Art 30 EU ETS Directive
 - Under which circumstances is review done and what is the framework for evaluation?
 - By 2030 the EU should look very different
 - IPCC 1.5°C Special Report
 - Decarbonisation of electricity production
 - Electrification of industrial sectors

Final comments – main comments (3)

- Need for clarity on options MS could use if a scheme becomes too expensive
 - Drop sectors?
 - Tiering?
 - Cross-sectoral correction factor?
- Transparency
 - Draft guidelines should be made public as soon as possible
 - Use of qualitative assessment needs to be transparent

Final comments

- Soft-cap on state aid (25% of auction revenue) has limited use
 - But could mitigate impact of state aid becoming skewed towards MS with high auction revenues
- Indirect cost compensation should not count towards Art.10 (3) of the EU ETS Directive
 - 50% of revenues generated from the auctioning of allowances should be used for selected purposes (climate mitigation and energy efficiency among others)
- Need for state aid guidelines to compensate households?
 - California scheme: only 14% of compensation 2014-2016 went to industry

Thank you for your attention

Overview indirect cost compensation vs. free allocation

Variable	Current indirect cost state aid guidelines	Phase 3 Free allocation (2015-2020)	Phase 4 Free allocation
Eligibility criteria	Quantitative (trade intensity and indirect cost as % of GVA) and qualitative	Quantitative (direct + indirect costs as % of GVA and/or trade intensity) and qualitative	Quantitative (trade intensity * emission intensity) and qualitative
Proportionality of aid	Max 85 % of costs 2013 - 2015, 80 % 2016 - 2018 and 75 % 2019 - 2020.	For industry deemed at risk of carbon leakage: 100% Industry not deemed at risk: 80% in 2013 to 30% in 2020	For industry deemed at risk of carbon leakage: 100%, Industry not deemed at risk: foreseen to be phased out after 2026 from a maximum of 30% to 0 by 2030
Base year for production/capacity	Average production at the installation over the reference period 2005- 2011. Thresholds: changes of 50-75%, 75-90% and over 90% result in changed compensation. Significant capacity changes taken into account.	Average installed capacity of 2 highest months of production 2005-2008. Thresholds: changes of 50-75%, 75-90% and over 90% result in changed compensation. Significant capacity changes taken into account.	Historical activity level (HAL): Average of annual production 2014-2018 for 2021-2025; 2019-2023 for 2026-2030. If two year rolling average has changed more than 15% compared to HAL: production level is revised
Benchmarks	Product electricity-intensity benchmark set by most electricity-efficient methods of production	Product emissions-intensity benchmarks set by top 10%	Product emissions-intensity benchmarks set by top 10%, with an annual reduction rate