European Commission consultation

Methodological choices for determining the list of sectors and subsectors deemed exposed to a significant risk of carbon leakage, for the period 2021-2030

I. General questions

This section includes general questions related to the carbon leakage list and free allocation.

Phase 3 of the EU Emission Trading System covers the period from 2013 until 2020 included and is governed by harmonised free allocation rules and an EU-wide limit on total emissions, as well as specific rules on addressing the risk of carbon leakage. What is your perception of the evolution of the risk of carbon leakage since the beginning of phase 3 of the EU Emission Trading System in 2013?

- ***Increased risk***
- ***Decreased risk***
- ***No significant change***
- ***I don't know***

If you wish, please motivate your answer:

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In 2015, 195 countries agreed to taking climate action with the aim of limiting global warming to below 1.5C. This will significantly diminish the risk of 'carbon leakage' as it reduces the number of countries where companies could relocate to avoid climate policies. Several jurisdictions including China, South-Korea, California, Quebec and New-Zealand have already started to implement carbon pricing policies.

Since 2013, increased evidence has also been provided on the fact that incidences of 'carbon leakage' have been nonexistent and that the issue is a secondary factor in decisions related to plant location (e.g. see Dechezlepretre et al. (2015, here) or Ecorys' Carbon Leakage Evidence Project (2013)). A study by the LSE (2015, see here) moreover shows that even with a complete phase out of free allocation, the risk of 'carbon leakage' will be marginal: a ten-fold increase in the carbon price would cause exports to fall by only 0.5% and would increase imports by 0.07%.

The carbon leakage list and the higher level of free allocation granted to relevant sectors and sub-sectors because of it, has been in place throughout phase 3 of the ETS. Please share your views on your administrative experience with the system, in particular whether you see scope for reducing administrative burden and/or simplification:

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The carbon leakage provisions have significantly increased the complexity of the EU ETS as a policy instrument, compared to the default method of auctioning, and have significantly reduced the ability of stakeholders and policymakers to still understand the EU ETS. Simplification of the EU ETS can be achieved by phasing out free allocation and by auctioning all emission allowances, thereby avoiding the complex set of design choices associated with free allocation including the qualitative and quantitative assessments for numerous (sub)sectors and the very many product benchmarks.

II. Methodological choices

Please bear in mind that the main elements and criteria of the assessment to determine the carbon leakage list are foreseen in the provisions of the EU ETS Directive. There are only certain methodological aspects left to be decided and they are the subject of this part of the consultation. In order to maximise the impact of the views expressed, you are therefore strongly encouraged to address the questions below while keeping in mind the aspects which are already decided on, as explained in the introductory part of this consultation.

The emission intensity of a sector is part of the criteria for assessing its exposure to carbon leakage risk. The emission intensity takes into account both direct and indirect emissions. To calculate the indirect emissions (emissions linked to the electricity consumed by the sector), electricity consumption needs to be converted into emissions by using an electricity emission factor representing the emission intensity of the electricity generation. Please share your views on the electricity emission factor to be used (In this case, electricity emission factors can either refer to average values or marginal values. The average value refers to the amount of emissions relative to the electricity produced taking into account all the different emission intensities (linked to fuel used). The marginal value reflects the incremental change in CO2 emissions linked to the last unit of electricity consumed and differs from the average values due to the heterogeneous structure of the electricity production (certain power plants producing base load and others peak load.)):

- ***average value – EU average emission intensity derived from electricity generated from the total fuel mix that includes all sources of energy in Europe***
- ***average value – EU average emission intensity derived from electricity generated from fossil fuel marginal value***
- ***marginal emission factor for the electricity generation determined by the specific CO2 emissions of the 'last kWh electricity consumed'***

If you wish, please motivate your answer:

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The first criterion is the most balanced metric as it is representative of the diversity of the electricity mix, without setting perverse incentives.

Taking the average value from fossil fuel electricity would not be representative of the EU's real emissions intensity of electricity and would lead to an exaggeration of the 'carbon leakage' risk. In 2015, electricity from combustible fuels represented 48.1% of the EU's net power generation (*Eurostat data*). Therefore, applying this metric to all electricity consumed would be a stark overestimation of the total amount of indirect emissions from industry, which would result in over-allocation of free permits.

The marginal emission factor is also not representative of the EU's real emissions intensity and the exposure to 'carbon leakage' risk. The marginal emission factor only represents the indirect emissions associated with a minor share of the total electricity consumed and is hence misleading for use for this criterion.

In your view, how would you assess international climate policy and action in 2018 compared to 2013, in particular in light of the Paris Agreement?

- ***Significant progress***
- ***Some progress***
- ***No progress***
- ***I don't know***

Assessing the exposure of a sector to the risk of carbon leakage includes calculating the trade intensity of the sector. In this context, it would be useful to have a reflection on whether climate policies in countries outside the EU can be considered comparable with the EU ETS at this stage since carbon leakage can by definition only occur when production moves to areas with less strict climate policies than the EU. Do you consider that countries or regions outside the EU have climate/energy policies that can be considered comparable with the EU ETS?

Please explain following the guiding sub-questions below.

1. ***Which countries or regions do you consider to have comparable policies to the EU ETS?***
2. ***Which elements of climate/energy policies worldwide should be considered in determining the comparability to the EU ETS?***
3. ***Which elements of climate/energy policies worldwide would you find more or less ambitious than the EU ETS?***
4. ***What do you think is the optimal way to reflect developments in climate policies in countries and regions outside of the EU in view of the facilitative dialogue and the global stocktake***

mechanisms foreseen under the Paris Agreement, as well as other relevant initiatives (e.g Action agenda)?

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With the adoption of the Paris Agreement in 2015, all countries have committed to taking climate action, and an increasing number of countries have implemented, or will implement, climate policies which are at least as ambitious as the EU ETS.

1) All regions which price carbon should be considered to have comparable policies to the EU ETS. In 2017, a total of 22% of world emissions was covered by carbon pricing schemes. Notably, the Chinese ETS, the South-Korean ETS, as well as the California-Québec-Ontario cap-and-trade system are policies similar to the EU ETS. Priority should be on working with these jurisdictions to jointly phase out free allocation.

2) The following elements should be considered: 1) The (implicit) price of carbon of the policy; 2) The average emission intensity of current industry production; 3) The level of ambition of the NDC in terms of additional action in the 2021-2030 period compared to business-as-usual.

3) The EU has one of the lowest carbon cost worldwide (see our briefing on the subject "Pricing carbon to achieve the Paris goals"). Jurisdictions with more ambitious price levels include: California-Québec-Ontario (€12.5/tCO2) and South Korea (€17/tCO2); China is set to have a similar level of pricing as the EU ETS.

4) The carbon leakage list will need to be regularly revisited following the facilitative dialogue, the global stocktakes and other initiatives to allow for an evaluation of these developments. These processes will likely prompt other countries to implement comparable policies to the EU ETS, which means they should not be taken into account for the trade criterion to avoid undue protectionist measures in the EU. The trade intensity hence needs to be reviewed on an annual basis from 2020 onwards to accurately reflect climate policies in other countries.

In your view, how would you assess the improvement of carbon emission intensities in production in manufacturing industry, in the EU compared to worldwide, including as regards the evolution of low-carbon investments and innovation?

- ***More progress in the EU compared to worldwide***
- ***Less progress in the EU compared to worldwide***
- ***Same level of progress***
- ***I don't know***

The EU ETS Directive foresees the possibility for qualitative assessments of sectors in view of determining their exposure to the risk of carbon leakage. The criteria and the eligibility for these assessments are laid down in the Directive. In order to ensure that such assessments are as robust, fair, transparent and equitable as the default assessments (where quantitative criteria and thresholds clearly indicate which sectors should be included in the carbon leakage list), what would you consider a good approach in terms of process? Please explain:

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The following suggestions are based on the three criteria laid out in section 2 of article 10b in the linked Directive. The qualitative assessment should inter alia take into account data on observed cost-pass through rates and the following elements for the criteria:

1. Evaluation of the sector's status under point *a* (ability to reduce emissions or electricity consumption) should include an assessment of available technologies and potential for new technology developments, as well as emissions levels and electricity consumption of the sector outside of Europe.

2. Evaluation of the sector's status under point *b* (current and projected market characteristics) should include an assessment of the competition impacts between carbon-intensive and clean industries as a result of placing the sector on the 'carbon leakage' list to ensure equal treatment with low-carbon alternatives.

3. Evaluation of the sector's status under point *c* (using profit margins as an indicator of investment and relocation decisions) should also assess the long-term profit impacts of placing the sector on the 'carbon leakage' list in the context of the transition to a zero-carbon world.

The qualitative assessments need to be done in consultation with stakeholders including civil society and clean industry representatives to ensure the assessments are done in a fair and equitable manner. Before the Commission finalises the result of the assessment, it should actively seek the views of these stakeholders (NGOs and clean industry) and publicly report how these views were taken into account in the final assessment. The verified data submitted by the sector should be made public to allow for robust assessments and proper public participation.

Which parameters would you consider as most relevant to assess the ability of a sector to pass through carbon costs into product prices beyond trade intensity? Please explain:

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The best metric to assess the ability of pass-through is to use observed data on the cost pass-through rates of the sector. Other parameters in case this information is not yet available include:

First, the market dominance of EU firms, relative to that of firms in third countries in the sector. A possible metric for this is the concentration ratio of European firms in the market. Should companies in the EU have market power, then they can pass on carbon costs.

Second, it should be investigated how easy or difficult it is for firms outside the EU to export their product into the EU market. In cases where there are obvious obstacles to importing the product from outside the EU, it can be assumed that there is a high ability of cost pass through.

Finally, the price elasticity of demand of the goods produced by the sector should be considered. Should the goods be relatively inelastic, then firms operating in the market would face lower competitiveness risks from increasing prices.

The EU ETS Directive foresees the possibility to assess products and sub-sectors rather than sectors in certain cases. The criteria, eligibility and level of assessment are laid down in the Directive. In such cases of lower levels of disaggregation, there is no official publicly available data. In order to ensure that such assessments are as robust, fair, transparent and equitable as the default

quantitative assessments, what would you consider as a good approach for assessment of products and sub-sectors? Please explain:

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Given the distributional impacts of adding more sub-sectors to the carbon leakage list, all assessments need to be done in consultation with stakeholders including civil society and clean industry representatives to ensure they are done in a fair and equitable manner. Before the Commission finalises the result of the assessment, it should actively seek the views of these stakeholders (NGOs and clean industry) and publicly report how these views were taken into account in the final assessment. The verified data submitted by the sub-sector should be made public to allow for stakeholders to analyse the robustness of the assessments and data provided.

For the assessment at 4-digit level, the Commission should complement the data submitted by the sub-sector with the points highlighted under the previous two questions as well as with an analysis of what the competition impacts on other products are, in particular on lower-carbon alternatives, of including this sub-sector on the carbon leakage list, in order to ensure a level playing field.