



Brussels, 15.2.2019  
C(2019) 930 final

**COMMISSION DELEGATED DECISION (EU) .../...**

**of 15.2.2019**

**supplementing Directive 2003/87/EC of the European Parliament and of the Council  
concerning the determination of sectors and subsectors deemed at risk of carbon leakage  
for the period 2021 to 2030**

(Text with EEA relevance)

{SEC(2019) 86 final} - {SWD(2019) 21 final} - {SWD(2019) 22 final}

## **EXPLANATORY MEMORANDUM**

### **1. CONTEXT OF THE DELEGATED ACT**

The EU emissions trading system (EU ETS) is a cornerstone of the EU's climate policy and a key tool in helping it achieve its objective of reducing greenhouse gas (GHG) emissions in a cost-effective manner. Auctioning is the general method for allocating emission allowances to companies that participate in the EU ETS.

The free allocation of emission allowances is an exception to that rule, which applies only during a transitional period. As such, free allocation is provided to well-defined industry sectors as a safeguard measure against a significant risk of carbon leakage<sup>1</sup> until comparable climate policy measures are undertaken by other countries. This could lead to an increase in total global emissions, undermining the effectiveness of the EU's emission mitigation policies. It may also reduce the economic output of energy-intensive EU companies due to a loss in market share.

The revised EU ETS Directive sets out the rules for the system of free allocation for the period 2021-2030. It also empowers the European Commission to adopt a delegated act to supplement the Directive, listing the sectors and subsectors exposed to the risk of carbon leakage. The list of sectors and subsectors which are deemed to be at risk of carbon leakage (hereinafter referred to as the 'carbon leakage list') will be valid for the entire Phase 4 of the EU ETS trading period, i.e. 2021-2030. This will provide industry with the high level of system security and certainty relevant to make long-term investments.

When a sector or subsector is placed on the carbon leakage list, each installation in that (sub)sector is granted free allocation at 100 % of its relevant benchmark level. Those not on the list will receive 30 %, up to 2026, with the free allocation to be gradually phased out by 2030. Consequently, the carbon leakage list has an economic significance as free allowances have a substantial financial value.

Article 10b of the ETS Directive sets out the criteria to determine for whether or not a sector is deemed to be exposed to a significant risk of carbon leakage. It also provides the formula for carbon leakage calculation and does leave no discretion to the Commission. The Commission was responsible for making the criteria operational by consistently using the official data sources. However, for a few sectors where the data gaps occurred, these were filled by the second best available option, e.g. applying deduction from the data from a higher level of aggregation.

The methodology for applying the criteria related to the second-level assessments was subject to a Commission impact assessment. The impact assessment received a positive opinion of the Regulatory Scrutiny Board on 4 May 2018, after taking into account the specific comments of the Board following the meeting on 21 March 2018.

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<sup>1</sup> Carbon leakage refers to the situation where, due to costs linked to climate policies, businesses in certain industry sectors or subsectors transfer production to other countries with less stringent emission constraints.

The carbon leakage assessment was carried out in two steps. For the quantitative first-level assessment at NACE-4 level of the statistical classification of economic activities, a sector is deemed to be at risk of carbon leakage if the ‘carbon leakage indicator’ exceeds the 0.2 threshold set in Article 10b(1) of the ETS Directive. For a limited number of cases meeting clearly established eligibility criteria specified in paragraphs 2 and 3 of Article 10b of the ETS Directive, a ‘second-level assessment’ was carried out. This took the form of a qualitative assessment with specified criteria or a quantitative assessment at a disaggregated level.

The carbon leakage list is a prerequisite for other legal acts to implement the post-2020 reform of the EU ETS system that will serve to determine the free allocation that industries will receive to protect against the risk of carbon leakage. To be ready for the start of the fourth trading period on 1 January 2021, these legal acts must be adopted sequentially. The carbon leakage list for 2021-2030 must be published before the data necessary to update the technical benchmark values and determine the free allocation is submitted by industry via the Member States.

## **2. CONSULTATIONS PRIOR TO THE ADOPTION OF THE ACT**

Stakeholders and the general public had the opportunity to provide feedback on the inception impact assessment open for a 4-week period in October 2017. The inception impact assessment gathered views from 42 stakeholders on both the first-level and second-level assessments. Most of the responses (36) were from industry representatives, while three were from individual companies. Only two responses were received from non-governmental organisations (NGOs), and one response from a trade union.

Furthermore, the 12-week open consultation on the methodological choices for determining the carbon leakage list was open until 12 February 2018, with 156 stakeholders providing feedback. Once again, the largest group of respondents were the sector associations (102) followed by individual companies (43), NGOs (5), government institutions (5) and individuals (1). While the questions mainly concerned the methodology of qualitative and disaggregated quantitative assessments, feedback was sought also on the overall experience throughout Phase 3 of the EU ETS as well as on perceptions about the international landscape of climate policy.

The Commission informed and consulted the Technical Working Group on Benchmarking on 22 February 2018 and 22 March 2018 on the preparations for the carbon leakage list for 2021-2030. This included the public consultation, calculation elements for the first-level assessment and the guidelines (framework) relating to the second-level assessments.

The Commission established the Expert Group on Climate Change Policy on 27 March 2018. To prepare for this Commission Delegated Decision, the Expert Group met on 4 May 2018, 14-15 June 2018, 17 July 2018, 2 and 15 October 2018.

Furthermore, two dedicated stakeholder workshops were organised on 2 March 2018 and 16 May 2018 to discuss guidance documents on the assessment methodology and the preliminary carbon leakage list.

Furthermore, online feedback on the text of the Delegated Decision was collected on the Better Regulation portal for four weeks between 5 December 2018 and 2 January 2019. Seven contributions were provided, all from companies and business organisations.<sup>2</sup>

Some comments received did not directly address the Delegated Decision, while others contained similar arguments or information to what has already been put forward during the extensive discussions that have taken place with industry stakeholders and the Climate Change Policy Expert Group. The text of the Delegated Decision is therefore maintained.

### **3. LEGAL ELEMENTS OF THE DELEGATED ACT**

Directive 2003/87/EC (ETS Directive) requires the Commission to determine a list of sectors and subsectors deemed to be exposed to a significant risk of carbon leakage. The objective of this Delegated Decision is to fulfil this obligation by determining the list for 2021-2030.

The eligible sectors and subsectors were assessed on the basis of the criteria set out in Article 10b(1), Article 10b(2), Article 10b(3), first subparagraph and Article 10b(3), fifth subparagraph of Directive 2003/87/EC and are presented accordingly.

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<sup>2</sup> [https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5046070\\_en](https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5046070_en)

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(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC<sup>3</sup>, and in particular Article 10b(5) thereof,

Whereas:

- (1) Directive 2003/87/EC provides that auctioning of greenhouse gas emission allowances is the basic principle within the scope of the system for greenhouse gas emission allowance trading within the Union (EU ETS).
- (2) The European Council of October 2014 considered that free allocation should not expire and that existing measures should continue after 2020 to prevent the risk of carbon leakage due to climate policy, as long as no comparable efforts are undertaken in other major economies. To preserve the environmental benefit of emission reductions in the Union while measures by third countries do not provide industry with comparable incentives to reduce emissions, transitional free allocation should continue to installations in sectors and subsectors at risk of carbon leakage.
- (3) Experience gathered during the operation of the EU ETS has confirmed that sectors and subsectors are at risk of carbon leakage to varying degrees, and that free allocation has prevented carbon leakage. While some sectors and subsectors can be deemed to be at a higher risk of carbon leakage, others are able to pass on a considerable share of the costs of allowances to cover their emissions in product prices without losing market share, and only bear the remaining part of the costs so that they are at a low risk of carbon leakage. To address the risk of carbon leakage, paragraph 5 of Article 10b of Directive 2003/87/EC provides that the Commission is to determine a list of sectors and subsectors deemed to be at risk of carbon leakage list. Those sectors and subsectors are to receive free allowances at 100% of the quantity determined pursuant to Article 10a of Directive 2003/87/EC.
- (4) By its Decision 2014/746/EU<sup>4</sup>, the Commission determined a carbon leakage list for the period 2015 to 2019. By Directive (EU) 2018/410 of the European Parliament and

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<sup>3</sup> OJ L 275, 25.10.2003, p. 32.

<sup>4</sup> Commission Decision 2014/746/EU of 27 October 2014 determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be

of the Council<sup>5</sup>, the validity of the carbon leakage list was extended until 31 December 2020.

- (5) Article 10b of Directive 2003/87/EC sets out the criteria for the assessment based on data from the three most recent calendar years available. In this regard, the Commission used data from the years 2013, 2014 and 2015 since, at the time of the assessment, data from 2016 were only available for some of the parameters.
- (6) In order to establish the carbon leakage list for 2021-2030, the Commission assessed the risk of carbon leakage of sectors and subsectors at NACE-4 level of the statistical classification of economic activities in the Union in accordance with Regulation (EC) No 1893/2006 of the European Parliament and of the Council<sup>6</sup>. NACE-4 is the level with optimal data availability defining sectors precisely. A sector is denoted at a 4-digit level of the NACE classification, and a subsector is denoted at Prodcom-6 or 8-digit level, that is, the classification of goods used for statistics on industrial production in the Union, following directly from the NACE classification.
- (7) The carbon leakage assessment was carried out in two steps. For the quantitative first-level assessment at NACE-4 level, a sector is deemed to be at risk of carbon leakage if the 'carbon leakage indicator' exceeds the 0.2 threshold set out in Article 10b(1) of Directive 2003/87/EC. For a limited number of cases meeting clearly established eligibility criteria specified in paragraphs 2 and 3 of Article 10b of Directive 2003/87/EC, a 'second-level assessment' was carried out, either as a qualitative assessment with specified criteria or as a quantitative assessment at a disaggregated level.
- (8) In accordance with Article 10b of Directive 2003/87/EC, the carbon leakage indicator was calculated by multiplying the sector's intensity of trade with third countries by the sector's emission intensity.
- (9) In accordance with Article 10b of Directive 2003/87/EC, intensity of trade with third countries was calculated as the ratio between total value of exports to third countries plus the value of imports from third countries and the total market size for the European Economic Area (annual turnover plus total imports from third countries). The Commission assessed the trade intensity for each sector and subsector on the basis of data reported by Eurostat in the Comext database. The Commission considers this to be the most complete and reliable data on the total values of exports to third countries and imports from third countries as well as on the total annual turnover in the Union.
- (10) Emission intensity was calculated as the sum of direct and indirect emissions for the sector concerned, divided by the gross value added and is measured in kg CO<sub>2</sub> divided by euros. The Commission considers the European Union Transaction Log to be the most accurate and transparent source of CO<sub>2</sub> emissions data at installation level and

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exposed to a significant risk of carbon leakage, for the period 2015 to 2019 (OJ L 308, 29.10.2014, p. 114)

<sup>5</sup> Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814, OJ L 76, 19.3.2018, p. 3.

<sup>6</sup> Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains (OJ L 393, 30.12.2006, p. 1).

have therefore been used to calculate the direct emissions for sectors. Installations have been attributed to sectors at NACE-4 level based on installation-level information provided by Member States in the national implementation measures submitted pursuant to Article 11 of Directive 2003/87/EC and Commission Decision 2011/278/EU<sup>7</sup>. Regarding the estimation of gross value added at sectoral level, data from the Eurostat structural business statistics have been used as it is considered to be the most accurate source.

- (11) In order to determine indirect emissions, data on electricity consumption collected directly from Member States is considered to be the most reliable source due to unavailability of data at EU-28 level. The electricity emission factor is used to convert electricity consumption into indirect emissions. The Commission used the average EU electricity generation mix as the reference value. This is based on the Union overall annual amount of emissions from the power sector accounting for all generation sources for electricity in Europe divided by the corresponding amount of electricity generation. The electricity emission factor has been updated to take into account decarbonisation of the electricity system and the increasing share of renewables. The new value should be referenced to 2015 which is aligned with the data for the three most recent calendar years available (2013-2015). The updated value is 376 grams of carbon dioxide per kWh.
- (12) Articles 10b(2) and (3) of Directive 2003/87/EC provide detailed rules for eligibility of specific sectors and subsectors for a second assessment, in case they fail to meet the main carbon leakage criterion for inclusion on the carbon leakage list. In cases where the carbon leakage indicator was between 0.15 and 0.2, a qualitative assessment may have been requested by a sector to be carried out according to the criteria outlined in Article 10b(2) of that Directive. In accordance with Article 10b(3) sectors and subsectors with an emission intensity exceeding 1.5 were eligible to apply for either a qualitative assessment or a quantitative assessment at disaggregated level (Prodcom-6 or 8-digit level). Sectors and subsectors for which free allocation is calculated on the basis of the refineries benchmarks were also eligible to apply for both types of assessments. Those sectors and subsectors which are listed in point 1.2 of the Annex to Decision 2014/746/EU were eligible to submit applications for a quantitative assessment at a disaggregated level.
- (13) An online consultation was conducted from November 2017 to February 2018, during which stakeholders were invited to provide views on the methodological choices for determining the carbon leakage list. Respondents were generally in favour of second-level assessments that would be as robust, fair and transparent as the first-level quantitative assessments, and expressed support for a uniform assessment framework that involves stakeholders. Four meetings took place to prepare the carbon leakage list and further work regarding the assessments to be carried out with Member States and with stakeholders between February and May 2018.
- (14) An impact assessment was conducted<sup>8</sup> to ensure that first-level assessments and second-level assessments for the carbon leakage list 2021-2030 are carried out in a comparable manner, i.e. that both assessments ensure that only sectors at risk of

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<sup>7</sup> Commission Decision 2011/278/EU of 27 April 2011 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council ([OJ L 130, 17.5.2011, p. 1](#)).

<sup>8</sup> Commission Staff Working Document SWD (2019) 22

carbon leakage are identified. The impact assessment focused on the operational options related to the second-level assessment framework.

- (15) A preliminary carbon leakage list for 2021-2030<sup>9</sup> was published on 8 May 2018, together with Commission framework guidance documents for qualitative and disaggregated quantitative assessments<sup>10</sup>.
- (16) Assessments based on the criteria set out in Articles 10b(2) and (3) of Directive 2003/87/EC have been carried out on a number of sectors that were not deemed to be at risk of carbon leakage based on the quantitative criteria set out in Article 10b(1).
- (17) The Commission assessed a total of 245 industrial sectors classified under the 'Mining and quarrying' and 'Manufacturing' divisions of the NACE classification. The sectors and subsectors listed in point 1 of the Annex to this Decision meet the criteria set out in Article 10b(1) of Directive 2003/87/EC and should be deemed to be at risk of carbon leakage.
- (18) Qualitative assessments, based on the criteria set out in Article 10b(2) and 10b(3) of Directive 2003/87/EC have been carried out on a number of sectors. In the case of the sectors: 'Extraction of salt' (NACE code 0893), 'Finishing of textiles' (NACE code 1330), 'Manufacture of basic pharmaceutical products' (NACE code 2110), 'Manufacture of ceramic household and ornamental articles' (NACE code 2341), 'Manufacture of ceramic sanitary fixtures' (NACE code 2342) and 'Manufacture of bricks, tiles and construction products, in baked clay' (NACE code 2332) it was concluded that the addition of those sectors to the carbon leakage list is justified. Those sectors should therefore be deemed to be at risk of carbon leakage for the period 2021-2030.
- (19) In the case of the sector 'Mining of lignite' (NACE code 0520), the qualitative assessment that was carried out identified a number of shortcomings, including the fact that the sector cannot be considered to be impacted by direct emission costs and doubts concerning the link made between intra-Union competition from other fuel sources and carbon leakage. Some regional competition from extra-Union lignite power plants was demonstrated, although the Union wide assessment confirms the extremely limited exposure to external competition. It was therefore concluded that the addition of this sector to the list of sectors and subsectors deemed to be exposed to a risk of carbon leakage is not justified.
- (20) Three applications were received from sectors not included in the preliminary carbon leakage list: 'Extraction of natural gas' (NACE code 0620), 'Manufacture of plaster products for construction purposes' (NACE code 2362) and 'Casting of light metals' (NACE code 2453). The assessment of these applications focused on their eligibility to be on the carbon leakage list based on a quantitative first-level assessment at NACE-4 level. The official data used to carry out the first-level assessments were communicated to stakeholders, and were considered as sufficiently robust for the publication of the preliminary carbon leakage list. The Commission has examined the additional information provided by the three sectors in their applications and does not

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<sup>9</sup> Commission Notice on Preliminary Carbon Leakage, 2021-2030 (OJ C 162, 8.5.2018, p. 1).

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[https://ec.europa.eu/clima/sites/clima/files/ets/allowances/leakage/docs/framework\\_for\\_qualitative\\_assessments.pdf](https://ec.europa.eu/clima/sites/clima/files/ets/allowances/leakage/docs/framework_for_qualitative_assessments.pdf)  
[https://ec.europa.eu/clima/sites/clima/files/ets/allowances/leakage/docs/framework\\_for\\_disaggregated\\_assessments.pdf](https://ec.europa.eu/clima/sites/clima/files/ets/allowances/leakage/docs/framework_for_disaggregated_assessments.pdf)

consider that this justifies changing the initial position. Those sectors continue not to be deemed to be at risk of carbon leakage, as the relevant carbon leakage indicators do not exceed the 0.2 threshold set out in Article 10b(1) of Directive 2003/87/EC. Furthermore, these sectors continue not to meet the eligibility criteria for further assessments as set out in Article 10b(2) and 10b(3) of Directive 2003/87/EC.

- (21) Quantitative disaggregated assessments based on the criteria set out in Article 10b(1) and (3) of Directive 2003/87/EC have been carried on a number of subsectors. In the case of the sub sectors: 'Kaolin and other kaolinic clays' (Prodcom code 08.12.21), 'Frozen potatoes, prepared or preserved (including potatoes cooked or partly cooked in oil and then frozen; excluding by vinegar or acetic acid)' (Prodcom code 10.31.11.30), 'Dried potatoes in the form of flour, meal, flakes, granules and pellets' (Prodcom code 10.31.13.00), 'Concentrated tomato puree and paste' (Prodcom code 10.39.17.25), 'Skimmed milk powder' (Prodcom code 10.51.21), 'Whole milk powder' (Prodcom code 10.51.22), 'Casein' (Prodcom code 10.51.53), 'Lactose and lactose syrup' (Prodcom code 10.51.54), 'Whey and modified whey in powder, granules or other solid forms, whether or not concentrated or containing added sweetening matter' (Prodcom code 10.51.55.30), 'Bakers' yeast' (Prodcom code 10.89.13.34), 'Vitrifiable enamels and glazes, engobes (slips) and similar preparations for ceramics, enamelling or glass' (Prodcom code 20.30.21.50), 'Liquid lustres and similar preparations; glass frit and other glass in powder; granules or flakes' (Prodcom code 20.30.21.70) and 'Open die forged ferrous parts for transmission shafts, camshafts, crankshafts and cranks etc.' (Prodcom code 25.50.11.34) it was concluded that the addition of those subsectors to the carbon leakage list is justified. Those subsectors should therefore be deemed to be exposed to a risk of carbon leakage for the period 2021-2030.
- (22) In the case of the subsectors 'Cocoa paste, whether or not defatted' (Prodcom code 10.82.11), 'Cocoa butter, fat and oil' (Prodcom code 10.82.12) and 'Cocoa powder, not containing added sugar or other sweetening matter' (Prodcom code 10.82.13), the quantitative disaggregated assessments that were carried out identified a number of deviations from the harmonised methodology leading to risks of significantly overestimating the carbon leakage indicator. It was therefore concluded that the addition of those subsectors to the carbon leakage list is not justified.
- (23) As the carbon leakage list is to be valid for the period 2021-2030, this Decision should apply from 1 January 2021,

HAS ADOPTED THIS DECISION:

#### *Article 1*

The sectors and subsectors listed in the Annex shall be deemed to be at risk of carbon leakage for the period 2021 to 2030.

#### *Article 2*

This Decision shall enter into force on the day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 1 January 2021.

Done at Brussels, 15.2.2019

*For the Commission*  
*The President*  
*Jean-Claude JUNCKER*