



Brussels, 19.12.2018
C(2018) 8664 final

COMMISSION DELEGATED REGULATION (EU) .../...

of 19.12.2018

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

(Text with EEA relevance)

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE DELEGATED ACT

The EU Emissions Trading System (EU ETS) is the cornerstone of European Union's climate policy and the key tool for achieving the EU's objective of reducing greenhouse gas (GHG) emissions cost-effectively. Under the EU ETS, installations active in industry sectors can receive free allocations to mitigate potential risks of carbon leakage. Carbon leakage refers to the possible increase in global greenhouse gas emissions if, because of costs related to climate policies, businesses were to transfer production to other countries where industry is not subject to comparable carbon constraints, with associated risk of increasing global emissions and negative impacts on economic growth and employment. The EU ETS Directive¹ has been revised and brought in line with the 2030 climate and energy targets.

While the revised EU ETS Directive determines the main criteria for establishing the free CO₂ allowances, allocation rules and rules for adjusting free allocation to production changes, more detailed implementation requirements need to be determined. These elements include the addition or deletion of definitions, possible modifications to the monitoring rules regarding the data collected by Member States and the production level data and the determination of historical activity levels.

The revised EU ETS Directive establishes that the Commission is empowered to adopt a delegated act concerning the Union-wide and fully harmonised rules for the allocation of free allowances. This possibility will be used for updating the current set of free allocation rules.

2. CONSULTATIONS PRIOR TO THE ADOPTION OF THE ACT

The roadmap on the delegated act revising the rules on free allocation in the EU ETS was open for public comments from 20 March 2018 until 17 April 2018². In total 29 contributions were received. Contributors included European and national industry associations, one NGO and several private companies. The sectors represented included the chemical sector, ferrous and non-ferrous metal production, cement production, ceramics production, fertilisers, magnesium production, plastics and sugar production. Contributions were received from 9 Member States (Germany, France, Spain, the Netherlands, Sweden, Belgium, Poland, Austria and the United Kingdom), Norway and from organisations at European level.

In addition, the delegated act was discussed with Member States in the Technical Working Group on Benchmarks on 22 February and 22 March and with Member States and stakeholders in the Climate Change Policy Expert Group. Meetings of the latter group took place on 4 May, 14 and 15 June and 17 July 2018.

These experts expressed their general support for the draft allocation rules and provided a high number of general and technical comments on all specific aspects of the act. These comments were duly analysed and incorporated into the act where necessary.

Furthermore, online feedback on the text of the Delegated Regulation was collected on the Better Regulation portal for four weeks between 26 October and 23 November 2018. 58 contributions were provided covering companies and business organisations (48), public authorities (5), citizens (3) and Trade Unions (1) with one contribution from an unknown entity.

¹ 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.

² https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-1523713_en

The main issues raised on elements of the Regulation on free allocation rules can be summarized as follows:

- (a) A longer transition period should be foreseen for free allocation in respect of flaring of waste gases, or this should continue indefinitely.
- (b) The historical activity levels as part of the allocation formula should be calculated using the median instead of the arithmetic mean.
- (c) The deadline for application for free allocation is considered to be tight and postponing the 30 May deadline should be considered to give industry more time.

These issues have already been discussed by the Climate Change Policy Expert Group and no new arguments or information have been put forward. After analysing the opinions received, the Commission maintained the text of the Delegated Regulation.

Other comments received address provisions of revised EU ETS Directive (in particular the update of benchmark values and the scope of data to be collected) and an implementing act on allocation adjustments the Commission intends to adopt in 2019.

3. LEGAL ELEMENTS OF THE DELEGATED ACT

The scope of the revision of the free allocation rules is to a large extent determined by the revised EU ETS Directive. The provisions on free allocation remain similar to what was in place under the EU ETS before its revision.

While the scope of the 54 benchmarks will remain unchanged, for new entrants and capacity extensions, new rules are required, as the methodologies for granting free allocations in these situations have been modified. In addition, the concepts linked to capacity changes in the installations are no longer relevant.

The data collection by Member States will, in addition to the data for the determination of historical activity levels as basis to calculate free allocation to individual installations, also cover data needed for the update of the 54 benchmark values. This requires the establishment of specific provisions on the monitoring, reporting and verification of data. Solutions for issues identified during the implementation of the current EU ETS phase are also covered by the act. For instance the possibility to renounce the free allocation (while keeping reporting and surrender obligations) and provisions for mergers and splits of installations are introduced in the act.

COMMISSION DELEGATED REGULATION (EU) .../...

of 19.12.2018

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

(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/EC³, and in particular Article 10a(1) thereof,

Whereas:

- (1) Directive 2003/87/EC sets out rules on how transitional free allocation of emission allowances should take place between 2021 and 2030.
- (2) By Decision 2011/278/EU⁴, the Commission laid down transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC. As Directive 2003/87/EC was substantially amended by Directive (EU) 2018/410 of the European Parliament and of the Council⁵ and for reasons of clarity as regards the rules applicable between 2021 and 2030, Decision 2011/278/EU should be repealed and replaced.
- (3) In accordance with Article 10a(1) of Directive 2003/87/EC, transitional Union-wide and fully-harmonised measures for the free allocation of emission allowances are to determine, to the extent feasible, *ex-ante* benchmarks so as to ensure that the free allocation of emission allowances takes place in a manner that provides incentives for reductions in greenhouse gas emissions and energy efficient techniques, by taking account of the most efficient techniques, substitutes, alternative production processes, high efficiency cogeneration, efficient energy recovery of waste gases, use of biomass and capture and storage of carbon dioxide, where such facilities are available. At the same time, those measures must not provide incentives to increase emissions. In order to reduce incentives to flare waste gases, other than for safety flaring, the number of allowances allocated free of charge for relevant sub-installations should be reduced by the historical emissions from waste gases flared, with the exception of safety flaring, and not used for the purpose of the production of measurable heat, non-measurable

³ OJ L 275, 25.10.2003, p. 32.

⁴ 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).

⁵ 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).

heat or electricity. However, taking into account the special treatment accorded by Article 10a(2) of Directive 2003/87/EC, and to provide for a transition, this reduction should only apply from 2026.

- (4) For the purposes of the collection of data which are to form the basis for the adoption of the 54 benchmark values for free allocation between 2021 and 2030 by means of implementing acts to be adopted in accordance with Article 10a(2) of Directive 2003/87/EC, it is necessary to continue to provide definitions of the benchmarks, including the products and related processes, identical to those currently set out in Annex I to Decision 2011/278/EU, apart from certain improvements to legal clarity and linguistic improvements. Article 10a(2) of Directive 2003/87/EC provides that the implementing acts for the 54 benchmark values for free allocation between 2021 and 2030 should be determined using the starting points for determination of annual reduction rate for benchmark value update that were contained in Commission Decision 2011/278/EU as adopted on 27 April 2011. For reasons of clarity, those starting points should also be contained in an Annex to this Regulation.
- (5) The data collection carried out prior to the allocation periods serves the purposes of determining the level of free allocation at installation level as well as providing data that will be used for the purposes of the implementing acts that will determine the 54 benchmark values that will apply between 2021 and 2030. Detailed data at sub-installation level need to be collected, as provided for in Article 11(1) of Directive 2003/87/EC.
- (6) Given the economic relevance of transitional free allocation and the need for equal treatment of operators, it is important that data collected from operators and used for decisions on allocation and which will be used for the implementing acts determining the 54 benchmark values for free allocations between 2021 and 2030 are complete and consistent, and present the highest achievable accuracy. Verification by independent verifiers is an important measure for this purpose.
- (7) The requirement to ensure the collection of high quality data and consistency with the monitoring and reporting of emissions within the scope of Directive 2003/87/EC is a joint responsibility of operators and Member States. For this purpose, specific rules for monitoring and reporting of activity levels, energy flows and emissions at sub-installation level should be provided for, taking duly into account the relevant provisions of Commission Regulation (EU) No 601/2012⁶. Data provided by industry and collected in accordance with these rules should be as accurate and high quality as possible and reflect the actual operations of installations, and be given due consideration for free allocation.
- (8) The operator of an installation should start monitoring the data required in accordance with Annex IV as soon as this Regulation enters into force to ensure that data for the year 2019 can be collected in line with the provisions of this Regulation.
- (9) To limit the complexity of the rules for monitoring and reporting of activity levels, energy flows and emissions at sub-installation level, it is appropriate not to apply a tiered approach.
- (10) To ensure comparable data for the implementing acts that will determine the benchmark values applicable for free allocation between 2021 and 2030, it is

⁶ Commission Regulation (EU) No 601/2012 of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council (OJ L 181, 12.7.2012, p. 30).

necessary to lay down detailed rules for assigning activity levels, energy flows and emissions to sub-installations, consistent with guidance documents produced for the purpose of benchmark data collection for the 2013–2020 period.

- (11) The monitoring methodology plan should describe the instructions to the operator in a logical and simple manner, avoiding duplication of effort and taking into account the existing systems in place at the installation. The monitoring methodology plan should cover the monitoring of activity levels, energy flows and emissions at sub-installation level and serve as a basis for the baseline data reports as well as the annual activity level reporting required for the purpose of adjusting transitional free allocation in accordance with Article 10a(20) of Directive 2003/87/EC. Where possible, the operator should make use of synergies with the monitoring plan approved in accordance with Regulation (EU) No 601/2012.
- (12) The monitoring methodology plan should require approval by the competent authority in order to ensure consistency with the monitoring rules. Due to time constraints, approval by the competent authority should not be required for the baseline data report due for submission in 2019. In this case, verifiers should assess compliance of the monitoring methodology plan with the requirements set out in this Regulation. To limit administrative burden, only significant changes to the monitoring methodology plan should require approval by the competent authority.
- (13) To ensure consistency between verification of annual emissions reports required by Directive 2003/87/EC and verification of reports submitted to apply for free allocation as well as to make use of synergies, it is appropriate to use the legal framework set by measures adopted pursuant to Article 15 of Directive 2003/87/EC.
- (14) To facilitate the data collection from operators and the calculation of the emission allowances to be allocated by Member States, inputs, outputs and emissions of each installation should be assigned to the sub-installations. Operators should ensure that activity levels, energy flows and emissions are correctly attributed to the relevant sub-installations, respecting the hierarchy and mutual exclusivity of sub-installations, and that there are no overlaps between sub-installations. Where relevant, this division should take account of the production of products in sectors deemed to be exposed to a risk of carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC.
- (15) Member States should submit national implementation measures to the Commission by 30 September 2019. In order to promote equal treatment of installations and to avoid distortions of competition, these submissions should include all installations that will be included under the European Union Emissions Trading System (EU ETS) pursuant to Article 24 of Directive 2003/87/EC, in particular where allocations have previously taken place to such installations in respect of heat during the period between 2013 and 2020.
- (16) In order to avoid any distortion of competition and to ensure an orderly functioning of the carbon market, operators should ensure that when determining the allocation of individual installations no double counting of material or energy flows and no double allocation take place. In this context, operators should pay particular attention to cases where a benchmarked product is produced in more than one installation, where more than one benchmarked product is produced in the same installation, and where intermediate products are exchanged across installation boundaries. Member States should check applications to this end.

- (17) Article 10a(4) of Directive 2003/87/EC provides for free allocation for district heating and high efficiency cogeneration. In accordance with Article 10b(4) of that Directive, the carbon leakage factor applied to non-carbon leakage sub-installations is to decline in a linear manner from 30% in 2026 to 0% in 2030, except for district heating, and subject to review pursuant to Article 30 of the Directive. Due to this distinction introduced between district heating and all other heat eligible under heat benchmark sub-installations, a separate heat sub-installation for district heating needs to be introduced in order to provide a clear approach in terms of formulae and baseline data template requirements. District heating should include measurable heat used for the purpose of space heating and cooling of buildings or sites that are not covered by the EU ETS or for the production of domestic hot water.
- (18) It is appropriate that the product benchmarks take account of the efficient energy recovery of waste gases and emissions related to their use. To that end, for the determination of the benchmark values for products of which the production generates waste gases, the carbon content of those waste gases should be taken into account to a large extent. Where waste gases are exported from the production process outside the system boundaries of the relevant product benchmark and combusted for the production of heat outside the system boundaries of a defined benchmarked process, related emissions should be taken into account by means of allocating additional emission allowances on the basis of the heat or fuel benchmark. In the light of the general principle that no emission allowances should be allocated for free in respect of any electricity production, to avoid undue distortions of competition on the markets for electricity supplied to industrial installations and taking into account the inherent carbon price in electricity, it is appropriate that, where waste gases are exported from the production process outside the system boundaries of the relevant product benchmark and combusted for the production of electricity, no additional allowances are allocated beyond the share of the carbon content of the waste gas accounted for in the relevant product benchmark.
- (19) To avoid distortions of competition and to incentivise the use of waste gases, in the absence of information on the composition of relevant gas streams, CO₂ emissions occurring outside the system boundaries of a product benchmark sub-installation resulting from the reduction of metal oxides or similar processes should only be partially assigned to process emissions sub-installations if they are not emitted as result of the energy use of waste gases.
- (20) Indirect emissions related to the production of electricity were considered for the determination of certain benchmark values in Decision 2011/278/EU, on the basis that direct emissions and indirect emissions from electricity production were to a certain extent interchangeable. Where those benchmarks apply, the indirect emissions of an installation should continue to be deducted applying the standard emissions factor that is also used for assessing sectors' exposure to potential carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC. The relevant provisions should be kept under review, *inter alia* with a view to enhancing equal treatment of activities producing the same product and for updating the reference year of 2015 for transitional free allocations between 2026 and 2030.
- (21) Where measurable heat is exchanged between two or more installations, the free allocation of emission allowances should be based on the heat consumption of an installation and take account of the risk of carbon leakage, as appropriate. Thus, to ensure that the number of free emission allowances to be allocated is independent from

the heat supply structure, emission allowances should be allocated to the heat consumer.

- (22) The amount of allowances to be allocated free of charge to incumbent installations should be based on historical activity data. The historical activity levels should be based on the arithmetic mean activity during the baseline periods. The baseline periods are sufficiently long to ensure that they can be considered representative for the allocation periods which cover five calendar years as well. For new entrants, as defined in Article 3(h) of Directive 2003/87/EC, the determination of activity levels should be based on the activity level of the first calendar year of operation, after the year of the start of normal operation, as the activity level reported for a full year is considered more representative than a value for the first year of operation that could cover only a short period. Compared to the allocation period 2013 – 2020, due to the introduction of allocation adjustments in accordance with Article 10a(20) of Directive 2003/87/EC, there is no need to maintain the concept of significant capacity change.
- (23) To ensure that the EU ETS delivers reductions over time, Directive 2003/87/EC provides for the Union-wide quantity of allowances to decrease in a linear manner. As regards electricity generators, according to Article 10a(4) of that Directive, a linear reduction factor is applied, using the year 2013 as a reference, unless the uniform cross-sectoral correction factor is applicable. The value of the linear reduction factor is increased to 2,2% per year from 2021.
- (24) For new entrants, the linear reduction factor is applied with the first year of the relevant allocation period as reference.
- (25) The uniform cross-sectoral correction factor that is applicable in each year of the period from 2021 to 2025 and from 2026 to 2030 to installations that are not identified as electricity generators, and that are not new entrants, pursuant to Article 10a(5) of Directive 2003/87/EC, should be determined on the basis of the preliminary annual amount of emission allowances allocated free of charge over each allocation period, calculated for these installations pursuant to this Regulation, excluding the installations that are excluded by Member States from the EU ETS in accordance with Article 27 or 27a of that Directive. The resulting amount of free emission allowances allocated in each year of the two periods should be compared with the annual amount of allowances that is calculated in accordance with Article 10a(5) and 10a(5a) of Directive 2003/87/EC for installations taking into account the relevant share of the annual Union-wide total quantity, as determined pursuant to Article 9 of that Directive, and the relevant amount of emissions that are only included in the EU ETS from 2021 to 2025 or 2026 to 2030, as appropriate.
- (26) As operators apply for free allocation, they should be free to renounce their allocation, totally or partially, by submitting an application to the relevant competent authority at any time during the relevant allocation period. To maintain certainty and predictability, operators should not have the right to withdraw such an application for the same allocation period. Operators having renounced their allocation should continue to monitor and report the necessary data in order to be able to apply for free allocation in the following allocation period. They should also continue to monitor and report the emissions every year and surrender the relevant amount of allowances.
- (27) To ensure equal treatment of installations, it is appropriate to lay down rules on mergers and splits of installations.

- (28) To facilitate the data collection from operators and the calculation of the emission allowances to be allocated by Member States concerning new entrants it is appropriate to set rules for application for such installations.
- (29) To ensure that no emission allowances are allocated free of charge to an installation that has ceased its operations, it is necessary to specify the conditions under which an installation is deemed to have ceased operations.
- (30) Article 191(2) of the Treaty on the Functioning of the European Union requires that the Union policy on the environment be based on the principle that the polluter should pay and, on this basis, Directive 2003/87/EC provides for a transition to full auctioning over time. Avoiding carbon leakage justifies temporarily postponing full auctioning, and targeted free allocation of allowances to industry is justified in order to address genuine risks of increases in greenhouse gas emissions in third countries where industry is not subject to comparable carbon constraints, as long as comparable climate policy measures are not undertaken by other major economies. Furthermore, free allocation rules should incentivise emission reductions in line with the Union's commitment to reduce the overall greenhouse gas emissions by at least 40% below 1990 levels by 2030. Incentives for emission reductions for activities that produce the same product should be enhanced.
- (31) In line with the Commission's practice of consulting experts when preparing delegated acts, the Commission Expert Group on Climate Change Policy, consisting of experts from Member States, industry and other relevant organisations, including civil society, has been consulted on documents and provided comments and suggestions on various elements of the proposal, and met three times between May and July 2018.
- (32) This Regulation should enter into force as a matter of urgency as operators are required to comply with its rules on baseline data reporting as of April or May 2019 as required by Article 10a(1) of Directive 2003/87/EC

HAS ADOPTED THIS REGULATION:

CHAPTER I

GENERAL PROVISIONS

Article 1

Scope

This Regulation shall apply to the free allocation of emission allowances under Chapter III (Stationary installations) of Directive 2003/87/EC as regards the allocation periods as from 2021, with the exception of transitional free allocation of emission allowances for the modernisation of electricity generation pursuant to Article 10c of Directive 2003/87/EC.

Article 2

Definitions

For the purposes of this Regulation, the following definitions apply:

- (1) 'incumbent installation' means any installation carrying out one or more activities listed in Annex I to Directive 2003/87/EC or an activity included in the European Union Emissions Trading System (EU ETS) for the first time in accordance with

Article 24 of that Directive, which obtained a greenhouse gas emission permit before or on:

- (a) 30 June 2019 for the period 2021-2025,
 - (b) 30 June 2024 for the period 2026-2030;
- (2) ‘product benchmark sub-installation’ means inputs, outputs and corresponding emissions relating to the production of a product for which a benchmark has been set in Annex I;
- (3) ‘heat benchmark sub-installation’ means inputs, outputs and corresponding emissions not covered by a product benchmark sub-installation relating to the production other than produced from electricity, the import from an installation covered by the EU ETS, or both, of measurable heat which is:
- (a) consumed within the installation's boundaries for the production of products, for the production of mechanical energy other than used for the production of electricity, for heating or cooling with the exception of the consumption for the production of electricity, or
 - (b) exported to an installation or other entity not covered by the EU ETS other than district heating with the exception of the export for the production of electricity;
- (4) ‘district heating’ means the distribution of measurable heat for the purpose of heating or cooling of space or of production of domestic hot water, through a network, to buildings or sites not covered by EU ETS with the exception of measurable heat used for the production of products and related activities or the production of electricity;
- (5) ‘district heating sub-installation’ means inputs, outputs and corresponding emissions not covered by a product benchmark sub-installation relating to the production, the import from an installation covered by the EU ETS, or both, of measurable heat which is exported for the purposes of district heating;
- (6) ‘fuel benchmark sub-installation’ means inputs, outputs and corresponding emissions not covered by a product benchmark sub-installation relating to the production of non-measurable heat by fuel combustion consumed for the production of products, for the production of mechanical energy other than used for the production of electricity, for heating or cooling with the exception of the consumption for the production of electricity, including safety flaring;
- (7) ‘measurable heat’ means a net heat flow transported through identifiable pipelines or ducts using a heat transfer medium, such as, in particular, steam, hot air, water, oil, liquid metals and salts, for which a heat meter is or could be installed;
- (8) ‘heat meter’ means a thermal energy meter (MI-004) within the meaning of Annex VI to Directive 2014/32/EU of the European Parliament and of the Council⁷ or any other device to measure and record the amount of thermal energy produced based upon flow volumes and temperatures;
- (9) ‘non-measurable heat’ means all heat other than measurable heat;

⁷ Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments (OJ L 96, 29.3.2014, p. 149).

- (10) ‘process emissions sub-installation’ means greenhouse gas emissions listed in Annex I to Directive 2003/87/EC other than carbon dioxide, which occur outside the system boundaries of a product benchmark listed in Annex I to this Regulation, or carbon dioxide emissions, which occur outside the system boundaries of a product benchmark listed in Annex I to this Regulation, as a direct and immediate result of any of the following processes and emissions stemming from the combustion of waste gases for the purpose of the production of measurable heat, non-measurable heat or electricity, provided that emissions that would have occurred from the combustion of an amount of natural gas, equivalent to the technically usable energy content of the combusted incompletely oxidised carbon, are subtracted:
- (a) the chemical, electrolytic or pyrometallurgical reduction of metal compounds in ores, concentrates and secondary materials for a primary purpose other than the generation of heat;
 - (b) the removal of impurities from metals and metal compounds for a primary purpose other than the generation of heat;
 - (c) the decomposition of carbonates, excluding those for flue gas scrubbing for a primary purpose other than the generation of heat;
 - (d) chemical syntheses of products and intermediate products where the carbon bearing material participates in the reaction, for a primary purpose other than the generation of heat;
 - (e) the use of carbon containing additives or raw materials for a primary purpose other than the generation of heat;
 - (f) the chemical or electrolytic reduction of metalloids or non-metal oxides such as silicon oxides and phosphates for a primary purpose other than the generation of heat;
- (11) ‘waste gas’ means a gas containing incompletely oxidised carbon in a gaseous state under standard conditions which is a result of any of the processes listed in point (10), where ‘standard conditions’ means temperature of 273,15 K and pressure conditions of 101 325 Pa defining normal cubic metres (Nm³) according to Article 3(50) of Commission Regulation (EU) No 601/2012⁸;
- (12) ‘start of normal operation’ means the first day of operations;
- (13) ‘safety flaring’ means the combustion of pilot fuels and highly fluctuating amounts of process or residual gases in a unit open to atmospheric disturbances which is explicitly required for safety reasons by relevant permits for the installation;
- (14) ‘baseline period’ means the five calendar years preceding the time-limit for submission of data to the Commission pursuant to Article 11(1) of Directive 2003/87/EC;
- (15) ‘allocation period’ means the five-year period starting from 1 January 2021 and each subsequent period of five years;
- (16) ‘uncertainty’ means a parameter, associated with the result of the determination of a quantity, that characterises the dispersion of the values that could reasonably be attributed to the particular quantity, including the effects of systematic as well as of

⁸ Commission Regulation (EU) No 601/2012 of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and the Council (OJ L 181, 12.7.2012, p. 30).

random factors, expressed in per cent, and describes a confidence interval around the mean value comprising 95% of inferred values taking into account any asymmetry of the distribution of values;

- (17) 'merger' means a fusion of two or more installations already holding greenhouse gas permits provided that they are technically connected, operate on the same site and the resulting installation is covered by one greenhouse gas permit;
- (18) 'split' means a division of an installation into two or more installations that are covered by separate greenhouse gas permits and are run by different operators.

Article 3

National administrative arrangements

In addition to designating a competent authority or authorities in accordance with Article 18 of Directive 2003/87/EC, Member States shall make the appropriate administrative arrangements for the implementation of the rules of this Regulation.

CHAPTER II

APPLICATION, DATA REPORTING AND MONITORING RULES

Article 4

Application for free allocation by operators of incumbent installations

1. The operator of an installation eligible for free allocation pursuant to Article 10a of Directive 2003/87/EC may submit to the competent authority an application for free allocation for an allocation period. That application shall be submitted before 30 May 2019 as regards the first allocation period and every five years thereafter.

Member States may set an alternative time-limit for the submission of such applications, which, however, may not be later or earlier than one month compared to the time-limit provided for in the first subparagraph.

2. An application for free allocation submitted pursuant to paragraph 1 shall be accompanied by the following particulars:
 - (a) a baseline data report verified as satisfactory in accordance with measures adopted pursuant to Article 15 of Directive 2003/87/EC containing data for the installation, and its sub-installations as specified in Article 10 and Annexes I and II to this Regulation, taking into account, for the calculation of historical activity levels for specific product benchmarks, Annex III to this Regulation, containing each parameter listed in Annex IV to this Regulation and covering the baseline period relating to the allocation period to which the application relates;
 - (b) the monitoring methodology plan which formed the basis for the baseline data report and the verification report, in accordance with Annex VI;
 - (c) a verification report issued in accordance with measures adopted pursuant to Article 15 of Directive 2003/87/EC on the baseline data report and, unless it has already been approved by the competent authority, on the monitoring methodology plan.

Article 5

Application for free allocation by new entrants

1. Upon application by a new entrant, the Member State concerned shall determine on the basis of this Regulation the amount of allowances to be allocated free of charge to that operator's installation once it has started normal operation.
2. The operator shall divide the installation concerned in sub-installations in accordance with Article 10. The operator shall submit to the competent authority, in support of the application referred to in paragraph 1, all relevant information and a new entrant data report containing each parameter listed in sections 1 and 2 of Annex IV for each sub-installation separately, for the first calendar year after the start of normal operation, together with the monitoring methodology plan as referred to in Article 8 and the verification report issued in accordance with measures adopted pursuant to Article 15 of Directive 2003/87/EC, and shall specify to the competent authority the date of start of normal operation.
3. Where an application by a new entrant fulfils all the conditions laid down in paragraph 2, and follows the allocation rules laid down in Articles 17 to 22, the competent authority shall approve it, as well as the specified date of start of normal operation.
4. Competent authorities shall only accept data submitted pursuant to this Article that has been verified as satisfactory by a verifier, in accordance with the requirements set out in measures adopted pursuant to Article 15 of Directive 2003/87/EC.

Article 6

General obligation to monitor

The operator of an installation, applying for or receiving free allocation pursuant to Article 10a of Directive 2003/87/EC shall monitor the data to be submitted as listed in Annex IV to this Regulation, based on a monitoring methodology plan approved by the competent authority by 31 December 2020.

Article 7

Monitoring principles

1. Operators shall determine complete and consistent data and ensure that there are no overlaps between sub-installations and no double counting. Operators shall apply the determination methods laid down in Annex VII, exercise due diligence and use data sources representing highest achievable accuracy pursuant to section 4 of Annex VII.
2. By way of derogation from paragraph 1, the operator may use other data sources in accordance with sections 4.4 to 4.6 of Annex VII, if any of the following conditions is met:
 - (a) the use of most accurate data sources pursuant to section 4 of Annex VII is technically not feasible;
 - (b) the use of most accurate data sources pursuant to section 4 of Annex VII would incur unreasonable costs;

- (c) based on a simplified uncertainty assessment identifying major sources of uncertainty and estimating their associated levels of uncertainty, the operator demonstrates to the satisfaction of the competent authority that the associated level of accuracy of the data source proposed by the operator is equivalent to or better than the level of accuracy of most accurate data sources pursuant to section 4 of Annex VII.
3. Operators shall keep complete and transparent records of all data listed in Annex IV, and supporting documents, for at least 10 years from the date of the submission of the application for free allocation. The operator shall, upon request, make those data and documents available to the competent authority and to the verifier.

Article 8

Content and submission of the monitoring methodology plan

1. The operator of an installation applying for free allocation pursuant to Articles 4(2)b and 5(2) shall draw up a monitoring methodology plan containing, in particular, a description of the installation and its sub-installations, the production processes and a detailed description of monitoring methodologies and data sources. The monitoring methodology plan shall comprise a detailed, complete and transparent documentation of all relevant data collection steps, and shall contain at least the elements laid down in Annex VI.
2. For each parameter listed in Annex IV, the operator shall select a monitoring method based on the principles laid down in Article 7 and on the methodological requirements laid down in Annex VII. Based on the risk assessment in accordance with Article 11(1) and control procedures referred to in Article 11(2), when selecting monitoring methods, the operator shall give preference to monitoring methods that give most reliable results, minimise the risk of data gaps, and are least prone to inherent risks, including control risks. The selected method shall be documented in the monitoring methodology plan.
3. Where Annex VI makes a reference to a procedure, and for the purposes of Article 12(3) of Regulation (EU) No 601/2012, the operator shall establish, document, implement and maintain such a procedure separately from the monitoring methodology plan. The operator shall make any written documentation of the procedures available to the competent authority upon request.
4. The operator shall submit the monitoring methodology plan to the competent authority for approval by the date set in Article 4(1). Member States may set an earlier time-limit for the submission of the monitoring methodology plan and may require the monitoring methodology plan to be approved by the competent authority before submission of an application for free allocation.
5. Where an operator applies for free allocation but has renounced it for a previous allocation period, the operator shall submit the monitoring methodology plan for approval not later than six months before the time-limit for submission of the application pursuant to Article 4(1).

Article 9

Changes to the monitoring methodology plan

1. The operator shall regularly check whether the monitoring methodology plan reflects the nature and functioning of the installation and whether it can be improved. To this end, the operator shall take account of any recommendations for improvements included in the relevant verification report.
2. The operator shall modify the monitoring methodology plan in any of the following situations:
 - (a) new emissions or activity levels occur due to new activities carried out or due to the use of new fuels or materials not yet contained in the monitoring methodology plan;
 - (b) the use of new measuring instrument types, new sampling or analysis methods or new data sources, or other factors, lead to higher accuracy in the determination of reported data;
 - (c) data resulting from the previously applied monitoring methodology has been found incorrect;
 - (d) the monitoring methodology plan is not, or no longer, in conformity with the requirements of this Regulation;
 - (e) it is necessary to implement recommendations for improvement of the monitoring methodology plan contained in a verification report.
3. The operator shall notify any intended modification of the monitoring methodology plan to the competent authority without undue delay. However, a Member State may allow the operator to notify, by 31 December of the same year or by another date set by the Member State, intended modifications of the monitoring methodology plan that are not significant within the meaning of paragraph 5.
4. Any significant modification of the monitoring methodology plan within the meaning of paragraph 5 shall be subject to approval by the competent authority. Where the competent authority considers that a modification that has been notified by the operator as significant is not significant, it shall inform the operator thereof.
5. The following modifications of the monitoring methodology plan of an installation shall be considered significant:
 - (a) modifications resulting from changes to the installation, in particular new sub-installations, changes to the boundaries of existing sub-installations or closures of sub-installations;
 - (b) a switch from a monitoring methodology laid down in sections 4.4 to 4.6 of Annex VII to another methodology laid down in those sections;
 - (c) the change of a default value or estimation method laid down in the monitoring methodology plan;
 - (d) changes requested by the competent authority to ensure conformity of the monitoring methodology plan with the requirements of this Regulation.
6. The operator shall keep records of all modifications of the monitoring methodology plan. In each record, the following shall be specified:
 - (a) a transparent description of the modification;
 - (b) a justification for the modification;
 - (c) the date of notification of the intended modification to the competent authority;

- (d) the date of acknowledgement, by the competent authority, of the receipt of the notification referred to paragraph 3, where available, and the date of the approval or provision of information referred to in paragraph 4;
- (e) the starting date of implementation of the modified monitoring methodology plan.

Article 10

Division into sub-installations

1. For the purposes of data reporting and of monitoring, the operator shall divide each installation eligible for the free allocation of emission allowances under Article 10a of Directive 2003/87/EC into sub-installations. For this purpose, the installation's inputs, outputs and emissions shall be assigned to one or more sub-installations by establishing, where relevant, a method for quantifying specific fractions of relevant inputs, outputs or emissions to be assigned to individual sub-installations.
2. For attributing the installation's inputs, outputs and emissions to sub-installations, the operator shall carry out the following steps in the descending order:
 - (a) if any of the products as specified for product benchmarks listed in Annex I are produced in the installation, the operator shall attribute the related inputs, outputs and emissions to the product benchmark sub-installations, as applicable, applying rules set out in Annex VII;
 - (b) if inputs, outputs and emissions qualifying for heat benchmark or district heating sub-installations are relevant at the installation, and do not qualify for any of the sub-installations referred to in point (a), the operator shall attribute them to heat benchmark sub-installations or to district heating sub-installation, as applicable, applying the rules set out in Annex VII;
 - (c) if inputs, outputs and emissions qualifying for fuel benchmark sub-installations are relevant at the installation, and do not qualify for any of the sub-installations referred to in points (a) or (b), the operator shall attribute them to fuel benchmark sub-installations, as applicable, applying the rules set out in Annex VII;
 - (d) if inputs, outputs and emissions qualifying for process emissions sub-installations are relevant at the installation, and do not qualify for any of the sub-installations referred to in points (a), (b) or (c), the operator shall attribute them to process emissions sub-installations, as applicable, applying the rules set out in Annex VII.
3. For heat benchmark sub-installations, fuel benchmark sub-installations and process emissions sub-installations, the operator shall clearly distinguish on the basis of NACE and PRODCOM codes whether or not the relevant process serves a sector or subsector deemed to be exposed to a significant risk of carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC. In addition, the operator shall distinguish the amount of measurable heat which is exported for the purposes of district heating from the measurable heat which does not serve a sector or subsector deemed to be exposed to a significant risk of carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC.

Where at least 95% of the activity level of the heat benchmark sub-installations, of the fuel benchmark sub-installations or of the process emissions sub-installations, serve sectors or subsectors deemed to be exposed to a significant risk of carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC or where at least 95% of the activity level of the heat benchmark sub-installations, of the fuel benchmark sub-installations or of the process emissions sub-installations serve sectors or subsectors not deemed to be exposed to a significant risk of carbon leakage, the operator is exempted from providing data allowing for the distinction in terms of carbon leakage exposure.

Where at least 95% of the activity level of the district heating sub-installations or the heat benchmark sub-installations are attributable to one of these sub-installations, the operator may attribute the total activity level of these sub-installations to the one with the highest activity level.

4. Where an installation included in the EU ETS has produced and exported measurable heat to an installation or other entity not included in the EU ETS, the operator shall consider that the relevant process of the heat benchmark sub-installation for this heat does not serve a sector or subsector deemed to be exposed to a significant risk of carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC, unless the operator provides evidence to the satisfaction of the competent authority that the consumer of the measurable heat belongs to a sector or subsector deemed to be exposed to a significant risk of carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC.

For distinguishing measurable heat attributable to the district heating sub-installation, the operator shall provide evidence to the satisfaction of the competent authority that the measurable heat is exported to district heating.

5. By carrying out the division in accordance with paragraphs 1 and 2, the operator shall ensure all of the following:
 - (a) each of the installation's physical products is attributed to one sub-installation without any omission or double counting;
 - (b) 100% of the quantity of all the installation's source streams and emissions as listed in the installation's monitoring plan approved in accordance with Regulation (EU) No 601/2012 are attributed to sub-installations without any omission or double counting, unless they relate to any process non-eligible for free allocation such as the production of electricity in the installation, flaring other than safety flaring which is not covered by a product benchmark sub-installation, or the production of measurable heat exported to other EU ETS installations;
 - (c) 100% of the quantity of net measurable heat eligible for free allocation produced within the installation, or imported or exported by the installation, as well as quantities transferred between sub-installations, are attributed to sub-installations without any omission or double counting;
 - (d) for all measurable heat produced, imported or exported by sub-installations, it is documented whether the measurable heat was produced in a combustion process within an EU ETS installation, imported from other heat producing processes or imported from non-EU ETS entities;

- (e) where electricity is produced within the installation, the quantities produced within product benchmark sub-installations are attributed to these sub-installations without any omission or double counting;
- (f) for each product benchmark sub-installation where exchangeability of fuel and electricity is relevant in accordance with section 2 of Annex I, the relevant amount of electricity consumed is separately identified and attributed;
- (g) where a sub-installation has outputs of carbon containing materials in the form of exported fuels, products, by-products, feedstocks for other sub-installations or installations, or waste gases, those outputs are attributed to sub-installations without any omission or double counting, if not covered by point (b);
- (h) CO₂ emissions occurring outside the system boundaries of a product benchmark sub-installation resulting from processes listed in points (a) to (f) of Article 2(10) are assigned to a process emissions sub-installation to the extent that it can be demonstrated to the satisfaction of the competent authority that these emissions are direct and immediate results of any of the processes listed in Article 2(10) and that they do not result from the subsequent oxidation of incompletely oxidised carbon in a gaseous state under standard conditions;
- (i) where CO₂ emissions from the combustion of waste gas not serving the purpose of the production of measurable heat, non-measurable heat or electricity occur outside the system boundaries of a product benchmark sub-installation as a result of the processes listed in points (a) to (f) of Article 2(10), 75% of the quantity of the carbon content of the waste gas shall be considered as converted to CO₂, and assigned to a process emissions sub-installation;
- (j) for avoiding any double counting, products of a production process returned into the same production process are deducted from annual activity levels, as appropriate in line with product definitions laid down in Annex I;
- (k) where measurable heat is recovered from processes covered by a fuel benchmark sub-installation, for avoiding double counting, the relevant amount of net measurable heat divided by a reference efficiency of 90% is subtracted from the fuel input. The recovery of heat from processes covered by a process emissions sub-installation is treated the same way.

Article 11

Control system

1. The operator shall identify sources of risks of errors in the data flow from primary data to final data in the baseline data report and shall establish, document, implement and maintain an effective control system to ensure that the reports resulting from data flow activities do not contain misstatements and are in conformity with the monitoring methodology plan and in compliance with this Regulation.

The operator shall make the risk assessment pursuant to the first subparagraph available to the competent authority upon request. The operator shall also make it available for the purposes of verification.

2. For the purpose of the first subparagraph of paragraph 1, the operator shall establish, document, implement and maintain written procedures for data flow activities as well

as for control activities, and include references to those procedures in the monitoring methodology plan in accordance with Article 8(3).

3. Control activities referred to in paragraph 2 shall include, where applicable:
 - (a) quality assurance of the relevant measurement equipment;
 - (b) quality assurance of information technology systems ensuring that the relevant systems are designed, documented, tested, implemented, controlled and maintained in a way that ensures processing reliable, accurate and timely data in accordance with the risks identified in accordance with paragraph 1;
 - (c) segregation of duties in the data flow activities and control activities, as well as management of necessary competencies;
 - (d) internal reviews and validation of data;
 - (e) corrections and corrective action;
 - (f) control of out-sourced processes;
 - (g) keeping records and documentation including the management of document versions.
4. For the purposes of paragraph 3(a), the operator shall ensure that all relevant measuring equipment is calibrated, adjusted and checked at regular intervals including prior to use, and checked against measurement standards traceable to international measurement standards, where available, and proportionate to the risks identified.

Where components of the measuring systems cannot be calibrated, the operator shall identify those in the monitoring methodology plan and propose alternative control activities.

When the equipment is found not to comply with required performance, the operator shall promptly take necessary corrective action.
5. For the purposes of paragraph 3(d), the operator shall review and validate data resulting from the data flow activities referred to in paragraph 2.

Such review and validation of the data shall include:

 - (a) a check as to whether the data are complete;
 - (b) a comparison of the data that the operator has determined over the preceding baseline period and, in particular, consistency checks based on time series of greenhouse gas efficiency of each sub-installation;
 - (c) a comparison of data and values resulting from different operational data collection systems, in particular for production protocols, sales figures and stock figures of products to which product benchmarks relate;
 - (d) comparisons and completeness checks of data at installation and sub-installation level for ensuring that the requirements laid down in Article 10(5) are fulfilled.
6. For the purposes of paragraph 3(e), the operator shall ensure that, where data flow activities or control activities are found not to function effectively, or not to respect the rules set in the documentation of procedures for those activities, corrective action is taken and affected data is corrected without undue delay.

7. For the purposes of paragraph 3(f), where the operator outsources one or more data flow activities or control activities referred to in paragraph 1, the operator shall proceed to all of the following:
 - (a) check the quality of the outsourced data flow activities and control activities in accordance with this Regulation;
 - (b) define appropriate requirements for the outputs of the outsourced processes as well as the methods used in those processes;
 - (c) check the quality of the outputs and methods referred to in point (b) of this paragraph;
 - (d) ensure that outsourced activities are carried out such that those are responsive to the inherent risks and control risks identified in the risk assessment referred to in paragraph 1.
8. The operator shall monitor the effectiveness of the control system, including by carrying out internal reviews and taking into account the findings of the verifier during the verification of reports for the purposes of Article 4(2).

When the operator finds the control system ineffective or not commensurate with the risks identified, it shall seek to improve the control system and update the monitoring methodology plan or the underlying written procedures for data flow activities, risk assessments and control activities, as appropriate.

Article 12

Data gaps

1. Where for technical reasons it is temporarily not feasible to apply the monitoring methodology plan as approved by the competent authority, the operator shall apply a method based on alternative data sources listed in the monitoring methodology plan for the purpose of performing corroborative checks in accordance with Article 10(5), or, if such an alternative is not contained in the monitoring methodology plan, an alternative method which provides the highest achievable accuracy according to the generic data sources and their hierarchy laid down in section 4 of Annex VII, or a conservative estimation approach, until the conditions for application of the approved monitoring methodology plan have been restored.

The operator shall take all necessary measures to achieve a prompt application of the approved monitoring methodology plan.
2. Where data relevant for the baseline data report are missing, for which the monitoring methodology plan does not list alternative monitoring methods or alternative data sources for corroborating data or for closing the data gap, the operator shall use an appropriate estimation method for determining conservative surrogate data for the respective time period and missing parameter, in particular, based on best industry practice, recent scientific and technical knowledge, and shall provide due justification for the data gap and the use of those methods in an annex to the baseline data report.
3. Where a temporary deviation from the approved monitoring methodology plan occurs in accordance with paragraph 1, or where data relevant for the report referred to in Article 4(2)(a) or Article 5(2) are found to be missing, the operator shall without undue delay develop a written procedure for avoiding this type of data gap in

the future and modify the monitoring methodology plan in accordance with Article 9(3). Furthermore, the operator shall assess whether and how the control activities referred to in Article 11(3) need to be updated and shall modify those control activities and the relevant written procedures, as appropriate.

Article 13

Use of electronic templates

Member States may require operators and verifiers to use electronic templates or specific file formats for the submission of baseline data reports, monitoring methodology plans and verification reports as referred to in Article 4(2) and of new entrant data reports, monitoring methodology plans and verification reports as referred to in Article 5(2).

CHAPTER III

ALLOCATION RULES

Article 14

National implementation measures

1. The list pursuant to Article 11(1) of Directive 2003/87/EC shall be submitted to the Commission using an electronic template provided by the Commission and shall identify all electricity generators, small installations that may be excluded from the EU ETS pursuant to Articles 27 and 27a of Directive 2003/87/EC and installations that will be included under the EU ETS pursuant to Article 24 of that Directive.
2. The list referred to in paragraph 1 shall contain the following information for each incumbent installation applying for free allocation:
 - (a) an identification of the installation and its boundaries using the installation identification code in the European Union Transaction Log (EUTL);
 - (b) activity information and information on eligibility for free allocation;
 - (c) an identification of each sub-installation of an installation;
 - (d) for each sub-installation, the annual activity level and annual emissions in each year of the relevant baseline period;
 - (e) for each sub-installation, information on whether it belongs to a sector or subsector deemed to be exposed to a significant risk of carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC, including the PRODCOM codes of the products produced, where applicable;
 - (f) for each sub-installation, the data reported in accordance with Annex IV.
3. Upon receipt of the list referred to in paragraph 1, the Commission shall assess the inclusion of each installation in the list and the related data submitted in accordance with paragraph 2.
4. Where the Commission does not reject an installation's inclusion in that list, the data shall be used for the calculation of the revised benchmark values as referred to in Article 10a(2) of Directive 2003/87/EC.

5. Member States shall determine and notify the preliminary annual amounts per installation of free allowances, using the revised benchmark values for the relevant allocation period, as determined in accordance with Article 16(2) to (7) and Articles 19 to 22.
6. Once the preliminary annual amounts of free allowances for the relevant allocation period are notified, the Commission shall determine any factor established pursuant to Article 10a(5) of Directive 2003/87/EC by comparing the sum of the preliminary annual amounts of free allowances to installations in each year over the relevant allocation period with application of the factors as determined in Annex V to this Regulation with the annual amount of allowances that is calculated in accordance with Article 10a(5) and (5a) of Directive 2003/87/EC for installations, taking into account the relevant share of the annual Union-wide total quantity, as determined pursuant to Articles 10(1) and 10a(5) of Directive 2003/87/EC. The determination shall take into account inclusions pursuant to Article 24 and exclusions pursuant to Articles 27 and 27a of Directive 2003/87/EC, as appropriate.
7. Once the factor established pursuant to in Article 10a(5) of Directive 2003/87/EC is determined, the Member States shall determine and submit to the Commission the final annual amount of emission allowances allocated free of charge for each year over the relevant allocation period in accordance with Article 16(8).
8. Upon request, each Member State shall make the reports received on the basis of Article 4(2) available to the Commission.

Article 15

Historical activity level for incumbent installations

1. Member States shall assess the baseline data reports and verification reports submitted in accordance with Article 4(2) to ensure conformity with the requirements of this Regulation. Where appropriate, the competent authority shall request corrections by the operators of any non-conformities or any errors, which impact on the determination of the historical activity levels. The competent authority may request operators to submit more data in addition to the information and documents to be provided in accordance with Article 4(2).
2. On the basis of the assessed baseline data reports and verification reports, Member States shall determine historical activity levels of each sub-installation and installation for the relevant baseline period. Member States may only decide to determine historical activity levels where data relating to an installation has been verified as satisfactory or if they are satisfied that the data gaps leading to the verifier's opinion are due to exceptional and unforeseeable circumstances that could not have been avoided even if all due care had been exercised.
3. The product-related historical activity level shall, for each product for which a product benchmark has been determined as referred to in Annex I, refer to the arithmetic mean of annual historical production of that product in the installation concerned during the baseline period.
4. The heat-related historical activity level shall refer to the arithmetic mean of annual historical import from an installation covered by the EU ETS, production, or both, during the baseline period, of net measurable heat consumed within the installation's boundaries for the production of products, for the production of mechanical energy

other than used for the production of electricity, for heating or cooling with the exception of the consumption for the production of electricity, or exported to an installation or other entity not covered by the EU ETS with the exception of the export for the production of electricity expressed as terajoule per year.

The district heating-related historical activity level shall refer to the arithmetic mean of annual historical import from an installation covered by the EU ETS, production, or both, during the baseline period, of measurable heat which is exported for the purposes of district heating expressed as terajoule per year.

5. The fuel-related historical activity level shall refer to the arithmetic mean of annual historical consumption of fuels used for the production of non-measurable heat consumed for the production of products, for the production of mechanical energy other than used for the production of electricity, for heating or cooling with the exception of the consumption for the production of electricity, including safety flaring, during the baseline period expressed as terajoule per year.
6. For process emissions, which occurred in relation with the production of products in the installation concerned during the baseline period, the process-related historical activity level shall refer to the arithmetic mean of annual historical process emissions expressed as tonnes of carbon dioxide equivalent.
7. For the purposes of the determination of the arithmetic mean values referred to in paragraphs 3 to 6, only calendar years during which the installation has been operating for at least one day shall be taken into account.

If a sub-installation has been operating for less than two calendar years during the relevant baseline period, the historical activity levels shall be the activity levels of the first calendar year of operation after the start of normal operation of this sub-installation.

If a sub-installation has not been operating for a calendar year after the start of normal operation during the baseline period, the historical activity level shall be determined when the activity level report after the first calendar year of operation is submitted.

8. By way of derogation from paragraph 3, Member States shall determine the product-related historical activity level for products to which the product benchmarks referred to in Annex III apply on the basis of the arithmetic mean of annual historical production according to the formulas set out in that Annex.

Article 16

Allocation at installation level for incumbent installations

1. Where the operator of an incumbent installation has submitted a valid application for free allocation in accordance with Article 4, the Member State concerned shall, based on the data collected in accordance with Article 14, calculate, for each year, the number of emission allowances allocated free of charge from 2021 onwards to that installation.
2. For the purpose of the calculation referred to in paragraph 1, Member States shall first determine the preliminary annual number of emission allowances allocated free of charge for each sub-installation separately, as follows:

- (a) for product benchmark sub-installations, the preliminary annual number of emission allowances allocated free of charge for a given year shall correspond to the value of that product benchmark for the relevant allocation period, adopted in accordance with Article 10a(2) of Directive 2003/87/EC, multiplied by the relevant product-related historical activity level;
- (b) for heat benchmark sub-installations, the preliminary annual number of emission allowances allocated free of charge for a given year shall correspond to the value of the heat benchmark for measurable heat for the relevant allocation period, adopted in accordance with Article 10a(2) of Directive 2003/87/EC, multiplied by the heat-related historical activity level for the consumption or export to non-ETS installations or other entities of measurable heat other than district heating;
- (c) for district heating sub-installations, the preliminary annual number of emission allowances allocated free of charge for a given year shall correspond to the value of the heat benchmark for measurable heat for the relevant allocation period, adopted in accordance with Article 10a(2) of Directive 2003/87/EC, multiplied by the district heating-related historical activity level;
- (d) for fuel benchmark sub-installations, the preliminary annual number of emission allowances allocated free of charge for a given year shall correspond to the value of the fuel benchmark for the relevant five-year period, adopted in accordance with Article 10a(2) of Directive 2003/87/EC, multiplied by the fuel-related historical activity level for the fuel consumed;
- (e) for process emissions sub-installations, the preliminary annual number of emission allowances allocated free of charge for a given year shall correspond to the process-related historical activity level multiplied by 0,97.

If a sub-installation has been operating for less than one calendar year after the start of normal operation during the baseline period, the preliminary allocation for the relevant allocation period shall be determined after the historical activity level has been reported.

3. For the purpose of Article 10b(4) of Directive 2003/87/EC, the factors determined in Annex V to this Regulation shall be applied to the preliminary annual number of emission allowances allocated free of charge determined for each sub-installation pursuant to paragraph 2 of this Article for the year concerned where the processes in those sub-installations serve sectors or subsectors deemed not to be exposed to a significant risk of carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC.

By way of derogation from the first subparagraph, for district heating sub-installations, the factor to be applied shall be 0,3.

4. Where the processes in the sub-installations referred to in paragraph 2 serve sectors or subsectors deemed to be exposed to a significant risk of carbon leakage as determined in accordance with Article 10b(5) of Directive 2003/87/EC, the factor to be applied shall be 1.
5. The preliminary annual number of emission allowances allocated free of charge for sub-installations that received measurable heat from sub-installations producing products covered by the nitric acid benchmark shall be reduced by the annual historical consumption of that heat during the relevant baseline periods, multiplied by the value of the heat benchmark for this measurable heat for the relevant

allocation period, adopted in accordance with Article 10a(2) of Directive 2003/87/EC.

From 2026, the preliminary annual number of emission allowances allocated free of charge for product benchmark sub-installations for the relevant allocation period shall be reduced by the annual historical emissions stemming from waste gases flared, with the exception of safety flaring, and not used for the purpose of the production of measurable heat, non-measurable heat or electricity.

6. The preliminary annual amount of emission allowances allocated free of charge for each installation shall be the sum of all sub-installations' preliminary annual numbers of emission allowances allocated free of charge calculated in accordance with paragraphs 2 to 5.

Where an installation encompasses sub-installations producing pulp (short fibre kraft pulp, long fibre kraft pulp, thermo-mechanical pulp and mechanical pulp, sulphite pulp or other pulp not covered by a product benchmark) exporting measurable heat to other technically connected sub-installations, the preliminary amount of emission allowances allocated free of charge shall, without prejudice to the preliminary annual numbers of emission allowances allocated free of charge for other sub-installations of the installation concerned, only take into account the preliminary annual number of emission allowances allocated free of charge, to the extent that pulp products produced by this sub-installation are placed on the market and not processed into paper in the same or other technically connected installations.

7. When determining the preliminary annual amount of emission allowances allocated free of charge for each installation, Member States and operators shall ensure that emissions or activity levels are not double-counted and that the allocation is not negative. In particular, where an intermediate product that is covered by a product benchmark according to the definition of the respective system boundaries set out in Annex I is imported by an installation, emissions shall not be double-counted when determining the preliminary annual amount of emission allowances allocated free of charge for both installations concerned.

8. The final annual amount of emission allowances allocated free of charge for each incumbent installation, except for installations covered by Article 10a(3) of Directive 2003/87/EC, shall be the preliminary annual amount of emission allowances allocated free of charge for each installation determined in accordance with paragraph 6 of this Article, multiplied by the factor as determined in accordance with Article 14(6) of this Regulation.

For installations covered by Article 10a(3) of Directive 2003/87/EC and eligible for the allocation of free emission allowances, the final annual amount of emission allowances allocated free of charge shall correspond to the preliminary annual amount of emission allowances allocated free of charge for each installation determined in accordance with paragraph 6 of this Article annually adjusted by the linear factor referred to in Article 9 of Directive 2003/87/EC, using the preliminary annual amount of emission allowances allocated free of charge for the installation concerned for 2013 as a reference, except for any year in which those allocations are adjusted in a uniform manner pursuant to Article 10a(5) of Directive 2003/87/EC.

By way of derogation from the second subparagraph, for any year for which the factor determined in accordance with Article 14(6) is lower than 100%, for installations covered by Article 10a(3) of Directive 2003/87/EC and eligible for the

allocation of free emission allowances, the final annual amount of emission allowances allocated free of charge shall correspond to the preliminary annual amount of emission allowances allocated free of charge for each installation determined in accordance with paragraph 6 of this Article, annually adjusted by the factor as determined in accordance with Article 14(6) of this Regulation.

9. For the purpose of the calculations referred to in paragraphs 1 to 8, the number of allowances for sub-installations and installations shall be expressed as the nearest integer.

Article 17

Historical activity level for new entrants

Member States shall determine historical activity levels of each new entrant and its sub-installations as follows:

- (a) the product-related historical activity level shall be, for each product for which a product benchmark has been determined as referred to in Annex I of this Regulation or pursuant to Article 24 of Directive 2003/87/EC, the activity level of the first calendar year after the start of normal operation for the production of this product of the sub-installation concerned;
- (b) the heat-related historical activity level shall be the activity level of the first calendar year after the start of normal operation for the import from an installation covered by the EU ETS, production, or both, of measurable heat consumed within the installation's boundaries for the production of products, for the production of mechanical energy other than used for the production of electricity, for heating or cooling with the exception of the consumption for the production of electricity, or exported to an installation or other entity not covered by the EU ETS with the exception of the export for the production of electricity;
- (c) the district heating-related historical activity level shall be the activity level of the first calendar year after the start of normal operation for the import from an installation covered by the EU ETS, production, or both, of measurable heat which is exported for the purposes of district heating;
- (d) the fuel-related historical activity level shall be the activity level of the first calendar year after the start of normal operation for the consumption of fuels used for the production of non-measurable heat consumed for the production of products, for the production of mechanical energy other than used for the production of electricity, for heating or cooling with the exception of the consumption for the production of electricity, including safety flaring, of the installation concerned;
- (e) the process emissions-related activity level shall be the activity level of the first calendar year after the start of normal operation for the production of process emissions of the process unit;
- (f) By way of derogation from point (a), the product-related historical activity level for products to which the product benchmarks referred to in Annex III apply shall be the activity level of the first calendar year after the start of normal operation for the production of this product of the sub-installation concerned, determined according to the formulas set out in that Annex.

Article 18

Allocation to new entrants

1. For the purposes of the free allocation of emission allowances to new entrants, Member States shall calculate the preliminary annual number of emission allowances allocated free of charge as of the start of normal operation of the installation for each sub-installation separately, as follows:
 - (a) for each product benchmark sub-installation, heat benchmark sub-installation and fuel benchmark sub-installation, the preliminary annual number of emission allowances allocated free of charge for a given year shall correspond to the value of that benchmark for the relevant period multiplied by the relevant historical activity level;
 - (b) for each process emissions sub-installation, the preliminary annual number of emission allowances allocated free of charge for a given year shall correspond to the process-related historical activity level multiplied by 0,97.

Article 16(3), (4), (5) and (7) shall apply *mutatis mutandis* to the calculation of the preliminary annual number of emission allowances allocated free of charge to new entrants.

2. The preliminary annual number of emission allowances allocated free of charge for the calendar year where the start of normal operation occurs shall correspond to the value of the applicable benchmark value for each sub-installation multiplied by the activity level of that year.
3. The preliminary annual amount of emission allowances allocated free of charge for each installation shall be the sum of all sub-installations' preliminary annual numbers of emission allowances allocated free of charge calculated in accordance with paragraphs 1 and 2. The second subparagraph of Article 16(6) shall apply.
4. Member States shall notify to the Commission without delay the annual amount of emission allowances per installation allocated free of charge to new entrants.

Emission allowances from the new entrants reserve created pursuant to Article 10a(7) of Directive 2003/87/EC shall be allocated by the Commission on a first come, first served basis as from receipt of that notification.

The Commission may reject the preliminary annual amount of emission allowances allocated free of charge to a specific installation.

5. The final annual amount of emission allowances allocated free of charge shall correspond to the preliminary annual amount of emission allowances allocated free of charge for each installation determined in accordance with paragraphs 1 to 4 annually adjusted by the linear factor referred to in Article 9 of Directive 2003/87/EC, using the preliminary annual amount of emission allowances allocated free of charge for the installation concerned for the first year of the relevant allocation period as a reference.
6. For the purpose of the calculations referred to in paragraphs 1 to 5, the number of allowances for sub-installations and installations shall be expressed as the nearest integer.

Article 19

Allocation in respect of steam cracking

By way of derogation from Article 16(2)(a) and Article 18(1)(a), the preliminary annual number of emission allowances allocated free of charge for a product benchmark sub-installation relating to the production of high value chemicals ("HVC") shall correspond to the value of the steam cracking product benchmark for the relevant allocation period multiplied by the historical activity level determined in accordance with Annex III and multiplied by the quotient of the total direct emissions including emissions from net imported heat over the baseline period referred to in Article 15(2) or of the first calendar year after the start of normal operation referred to in Article 17(a), as appropriate, calculated in accordance with Article 22(2) and expressed as tonnes of carbon dioxide equivalent and the sum of these total direct emissions and the relevant indirect emissions over the baseline period referred to in Article 15(2) or of the first calendar year after the start of normal operation referred to in Article 17(a), as appropriate, calculated in accordance with Article 22(3). To the result of that calculation, 1,78 tonnes of carbon dioxide per ton of hydrogen times the mean historical production of hydrogen from supplemental feed expressed in tons of hydrogen, 0,24 tonnes of carbon dioxide per ton of ethylene times the mean historical production of ethylene from supplemental feed expressed in tons of ethylene, and 0,16 tonnes of carbon dioxide per ton of HVC times the mean historical production of other high value chemicals than hydrogen and ethylene from supplemental feed expressed in tons of HVC, shall be added.

Article 20

Allocation in respect of vinyl chloride monomer

By way of derogation from Article 16(2)(a) and Article 18(1)(a), the preliminary annual number of emission allowances allocated free of charge for a sub-installation relating to the production of vinyl chloride monomer ("VCM") shall correspond to the value of the VCM benchmark for the relevant allocation period multiplied by the historical activity level for VCM production expressed as tonnes and multiplied by the quotient of the direct emissions for the production of VCM including emissions from net imported heat over the baseline period referred to in Article 15(2) or of the first calendar year after the start of normal operation referred to in Article 17(a), as appropriate, calculated in accordance with Article 22(2), expressed as tonnes of carbon dioxide equivalent and the sum of those direct emissions and the hydrogen-related emissions for the production of VCM over the baseline period referred to in Article 15(2) or of the first calendar year after the start of normal operation referred to in Article 17(a), as appropriate, expressed as tonnes of carbon dioxide equivalent calculated on the basis of the historical heat consumption stemming from hydrogen combustion expressed as terajoules times the value of the heat benchmark for the relevant allocation period.

Article 21

Heat flows between installations

Where a product-benchmark sub-installation encompasses measurable heat imported from an installation or other entity not included in the EU ETS, the preliminary annual number of emission allowances allocated free of charge for the product benchmark sub-installation concerned determined pursuant to Article 16(2)(a) or Article 18(1)(a), as appropriate, shall be reduced by the amount of heat historically imported from an installation or other entity not

included in the EU ETS in the year concerned multiplied by the value of the heat benchmark for measurable heat for the relevant allocation period.

Article 22

Exchangeability of fuel and electricity

1. For each product benchmark sub-installation corresponding to a product benchmark defined in section 2 of Annex I with consideration of exchangeability of fuel and electricity, the preliminary annual number of emission allowances allocated free of charge shall correspond to the value of the relevant product benchmark for the relevant allocation period multiplied by the product-related historical activity level and multiplied by the quotient of the total direct emissions including emissions from net imported heat over the baseline period referred to in Article 15(2) or of the first calendar year after the start of normal operation referred to in Article 17(a), as appropriate, calculated in accordance with paragraph 2, expressed as tonnes of carbon dioxide equivalent and the sum of these total direct emissions and the relevant indirect emissions over the baseline period referred to in Article 15(2) or of the first calendar year after the start of normal operation referred to in Article 17(a), as appropriate, calculated in accordance with paragraph 3.
2. For the purposes of the calculation of emissions from net imported heat, the amount of measurable heat for the production of the product concerned imported from installations covered by the EU ETS during the baseline period referred to in Article 15(2) or of the first calendar year after the start of normal operation referred to in Article 17(a), as appropriate, shall be multiplied by the value of the heat benchmark for the relevant allocation period.
3. For the purposes of the calculation of indirect emissions, the relevant indirect emissions refer to the relevant electricity consumption as specified in the definition of processes and emissions covered in Annex I during the baseline period referred to in Article 15(2) or of the first calendar year after the start of normal operation referred to in Article 17(a), as appropriate, expressed in megawatt-hours for the production of the product concerned times 0,376 tonnes of carbon dioxide per megawatt-hour and expressed as tonnes of carbon dioxide.

Article 23

Changes to the allocation of an installation

1. Operators shall inform the relevant competent authority of any change related to the operation of an installation which has an impact on the installation's allocation. Member States may set a time-limit for that notification and may require the use of electronic templates or specific file formats.
2. After assessing the relevant information, the competent authority shall submit to the Commission all relevant information, including the revised final annual amount of emission allowances allocated free of charge for the installation concerned.

The competent authority shall submit the relevant information pursuant to the first subparagraph using an electronic system operated by the Commission.
3. The Commission may reject the revised final annual amount of emission allowances allocated free of charge for the installation concerned.

4. The Commission shall adopt a Decision based on the notification received, shall inform the relevant competent authority and shall introduce the changes, where appropriate, into the Union Registry set up pursuant to Article 19 of Directive 2003/87/EC and the EUTL, referred to Article 20 of that Directive.

Article 24

Renunciation of free allocation of allowances

1. An operator that has been granted free allocation of allowances may renounce it in respect of all or certain sub-installations at any time during the relevant allocation period by submitting an application to the competent authority.
2. After assessing the relevant information, the competent authority shall submit to the Commission the revised final annual amount of emission allowances allocated free of charge for the installation concerned as described in Article 23(2).
The revised allocation shall concern the calendar years following the year of the application referred to in the paragraph 1.
3. The Commission shall adopt a Decision as regards the renunciation and shall follow the procedure referred to Article 23(4).
4. The operator shall have no right to withdraw its application referred to in paragraph 1 the same allocation period.

Article 25

Mergers and splits

1. The operators of new installations resulting from a merger or a split shall provide the following documentation to the competent authority, as appropriate:
 - (a) names, addresses and contact data of the operators of the previously separate or single installations;
 - (b) names, addresses and contact data of the operators of the newly formed installation;
 - (c) a detailed description of the boundaries of the installation parts concerned if applicable;
 - (d) the permit identifier and the identification code of the newly formed installation(s) in the Union Registry.
2. Installations resulting from mergers or splits shall submit to the competent authority the reports referred to in Article 4(2). If the installations before the merger or split were new entrants, operators shall report to the competent authority the data from the start of normal operation.
3. Mergers or splits of installations, including splits within the same corporate group shall be assessed by the competent authority. The competent authority shall notify the Commission of the change of operators.

Based on the data received pursuant to paragraph 2, the competent authority shall determine the historical activity levels in the baseline period for each sub-installation of each newly formed installation after the merger or split. In the case that a sub-

installation is split into two or more sub-installations, the historical activity level and allocation to the sub-installations after the split shall be based on the historical activity levels in the baseline period of the respective technical units of the installation before the split.

4. Based on the historical activity levels after the mergers or splits, the free allocation of allowances of the installations after mergers or splits shall correspond to the final amount of free allocation, before the mergers or splits.
5. The Commission shall review each allocation of allowances of the installations after mergers or splits and communicate the results of that assessment to the competent authority.

Article 26

Cessation of operations of an installation

1. An installation is deemed to have ceased operations where any of the following conditions is met:
 - (a) the relevant greenhouse gas emissions permit has been withdrawn, including if the installation no longer meets the thresholds of the activities listed in Annex I to Directive 2003/87/EC;
 - (b) the installation is no longer operating and it is technically impossible to resume operation.
2. Where an installation has ceased operation, the Member State concerned shall not issue emission allowances to it as of the year following the cessation of operations.
3. Member States may suspend the issuance of the emission allowances to installations that have suspended operations as long as it is not established whether they will resume operations.

CHAPTER IV

FINAL PROVISIONS

Article 27

Repeal of Decision 2011/278/EU

Decision 2011/278/EU is repealed with effect from 1 January 2021. However, it shall continue to apply to allocations relating to the period prior to 1 January 2021.

Article 28

Entry into force

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

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 19.12.2018

For the Commission
The President
Jean-Claude JUNCKER