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Directorate B - European and International Carbon Markets

Guidance Document n°1
on the harmonised free allocation methodology for the EU ETS post
2020

General Guidance to the allocation methodology

Final version issued on 31 January 2019

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1 Introduction

1.1 Status of the Guidance Documents

This guidance document is part of a group of documents, which are intended to support the Member States, and their Competent Authorities, in the coherent implementation throughout the Union of the allocation methodology for the fourth trading period of the EU ETS (post 2020) established by the Delegated Regulation of the Commission **XX/XX** on “Transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of the EU ETS Directive” (FAR).

The guidance does not represent an official position of the Commission and is not legally binding. However, this guidance aims to clarify the requirements established in the EU ETS Directive and the FAR and is essential to understanding those legally binding rules.

This draft guidance document is based on a draft provided by a consortium of consultants (SQ Consult, Umweltbundesamt) and builds on the guidance documents developed for Phase 3¹. It takes into account the discussions at several meetings of the Expert Group on Climate Change Policy and written comments received from stakeholders and experts from Member States.

The guidance papers do *not* go into detail regarding the procedures that Member States apply when issuing greenhouse gas emissions permits. It is acknowledged that the approach to setting the installation boundaries laid down in greenhouse gas (GHG) emissions permits differ between Member States.

1.2 Background of the FAR Guidance Documents

Specific topics were identified within the FAR which deserve further explanation or guidance. The FAR guidance documents intend to address these issues as specifically and clearly as possible. The Commission considers it necessary to achieve the maximum level of harmonisation in the application of the allocation methodology for Phase 4.

The FAR guidance documents aim at achieving consistency in the interpretation of the FAR, to promote harmonisation and prevent possible abuse or distortions of competition within the Community. The full list of those documents is outlined below:

- Guidance document no. 1 – general guidance:
This document gives a general overview of the allocation process and explains the basics of the allocation methodology. It also explains how the different Guidance documents relate to each other.
- Guidance document no. 2 – guidance on allocation approaches at the installation level:
This document explains how the allocation methodology works at the installation level and explains how a sector’s exposure to the risk of carbon leakage affects the determination of the installations’ free allocation.

¹ by a consortium of consultants (Ecofys NL, Fraunhofer ISI, Entec).

- Guidance document no. 3 – data collection guidance:
This document explains which data are needed from operators to be submitted to the Competent Authorities and how to collect them, covering both data for the determination of the preliminary free allocation as well as for the update of the benchmark values. It reflects the structure of the data collection template provided by the European Commission.
- Guidance document no. 4 – guidance on NIMs data verification:
This document is targeted at EU ETS verifiers and accreditation bodies. It explains the verification process concerning the data collection for the National Implementation Measures², data submissions by new entrants.
- Guidance document no. 5 - guidance on Monitoring & Reporting (M&R) for the FAR:
This document serves three purposes:
 - (a) Provide a “quick guide” for readers new to the topic of free allocation in the EU ETS;
 - (b) Give an overview of the M&R requirements introduced by the FAR supplementing the existing annual compliance cycle already established by the Monitoring & Reporting Regulation (MRR) and the Accreditation & Verification Regulation (AVR); and
 - (c) Provide guidance on the requirements of the monitoring methodology plan and other new elements of the FAR which are not covered by other guidance documents of this series.
- Guidance document no. 6 – guidance on cross boundary heat flows:
This document explains how the allocation methodologies work in case of heat transfer across the boundaries of an installation.
- Guidance document no. 7 – guidance on new entrants and closures:
This document is meant to explain allocation rules concerning new entrants, closures and activity level changes.
- Guidance document no. 8 – guidance on waste gases and process emission sub-installations:
This document provides for an explanation of the allocation methodology concerning process emission sub-installations, in particular, concerning the waste gas treatment.
- Guidance document no. 9 – sector-specific guidance:
This document provides a detailed description of the product benchmarks as well as the system boundaries of each of the product benchmarks listed within the FAR. Furthermore, special methods to calculate the activity levels or to adjust the allocation are described, where relevant.
- Guidance document no. 10 – mergers and splits:

This document explains how the allocation can be impacted by mergers and/or splits of installations.

This list of documents is intended to complement other guidance papers issued by the European Commission related to Phase 3 and – where needed – updated for Phase 4 of EU ETS, in particular:

- Guidance on Interpretation of Annex I of the EU ETS Directive³ (excl. aviation activities); This document provides guidance on how to interpret Annex I of the Directive, which is the scope of the EU ETS from 2013 onwards;

² Article 11 of Directive 2003/87/EC

³ https://ec.europa.eu/clima/sites/clima/files/ets/docs/guidance_interpretation_en.pdf

- Guidance paper to identify electricity generators⁴.

In addition, the Commission has provided an extensive suite of guidance material in relation to MRVA under the EU ETS⁵. The user of the current document is assumed to be familiar with at least the basic principles of MRVA.

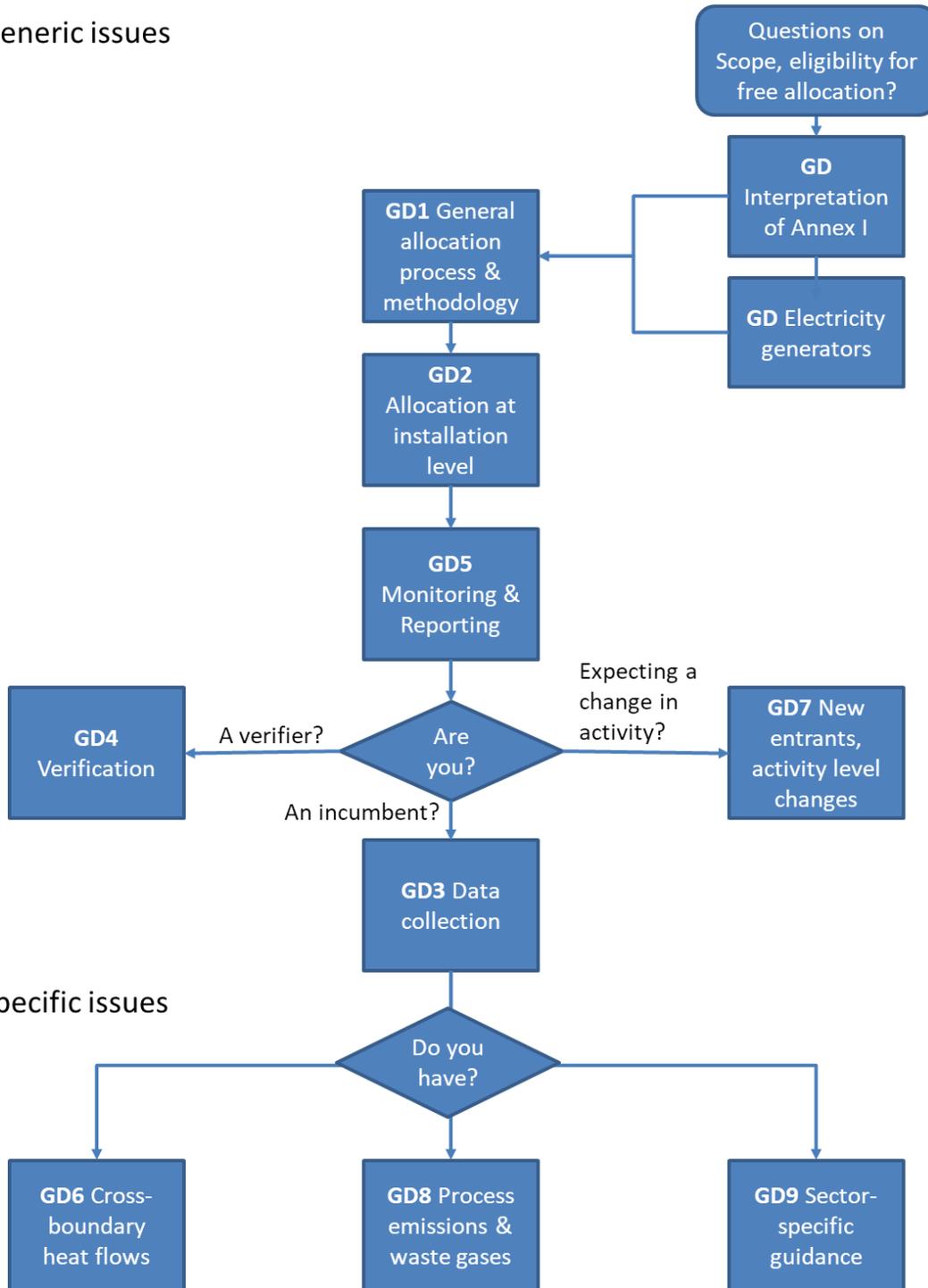
The below figure illustrates the relation between the various guidance documents, and which information can be found where. The full set of guidance documents can be found on the Commission website⁶.

⁴ https://ec.europa.eu/clima/sites/clima/files/ets/docs/guidance_electricity_generators_en.pdf

⁵ https://ec.europa.eu/clima/policies/ets/monitoring_en#tab-0-1 – see in particular the section “Quick guides”

⁶ See: URL to be added

Generic issues



Specific issues

Figure 1 The suite of Guidance documents: the relations between individual Guidance documents and where to find which information. Note that the above does not indicate a timeline, but rather whether the topic of the GD are generic (relevant to all readers) or for specific audiences (in specific roles, situations or with specific issues).

1.3 Use of the Guidance documents

The guidance documents give guidance on implementing the new allocation methodology for Phase 4 of the EU ETS, as from 2021: the Member States may use this guidance when they perform the data collection pursuant to Article 14 of the FAR in order to define the complete list of installations as well as to calculate any free allocation to be determined for the National Implementing Measures (NIMs) pursuant to Article 11(1) of the Directive 2003/87/EC.

Note that this document only covers the transitional harmonised free allocation to industry under Article 10a of the EU ETS Directive. Any allocation under Article 10c (“Option for transitional free allocation for the modernisation of the energy sector”) is outside the scope of this document.

References to articles within this document generally refer to the revised EU ETS Directive and to the FAR.

A comparison of the content of the current version of this Guidance Document and its 2011 version is included in Annex D.

Note on outstanding issues in this version of the Guidance Document

As decision-making on the allocation methodology is not yet finalized, certain elements of this Guidance Document are as yet undefined. This especially includes issues related to the implementing act still to be adopted on the detailed rules on the changes to allocations of free allowances, the update of the benchmark values and the new carbon leakage list. In addition, it can also apply to references to the outstanding legislation itself or to accompanying Guidance Documents that are still to be prepared or finalized.

1.4 Additional guidance

Alongside the guidance documents, additional support to the Member State authorities is provided on the Commission’s-website, with a list of guidance documents, FAQs and useful references, https://ec.europa.eu/clima/policies/ets/allowances_en#tab-0-0.

1.5 Scope of this guidance document

This guidance document explains the main principles and processes of the allocation methodology for Phase 4, without addressing specific allocation issues. It gives a short overview of the NIMs development process and describes the main features of the allocation methodology.

2 New elements in the Phase 4 allocation methodology

Before going into the details of the new allocation methodology some background information is provided in order to understand how the new allocation methodology in Phase 4 differs from the allocation methodology used in the previous Phase.

The most recent amendment to the Directive on the EU ETS was published on 19 March 2018⁷. Since Phase 3, the EU ETS is based on a Union-wide harmonised allocation method in which “auctioning should be the basic principle for allocation, as it is the simplest and generally considered to be the most economically efficient system”⁸. The 2018 revision reiterates that “The auctioning of allowances remains the general rule, with free allocation as the exception” (recital 8). No free allocation shall, according to the revised Directive, be made in respect of any electricity production with the exception of electricity produced from waste gases⁹. Also, no free allocation shall be given to installations for the capture and pipelines for the transport of, or to storage sites for, carbon dioxide.

For other emissions, transitional free allocation based on Union-wide ex-ante benchmarks are, and will continue to be, used during Phase 4. This implies:

- For products with a product benchmark, the amount of free allocation is based on specific emissions at the *product level*, while for activities without product benchmarks so-called “fall back” approaches exist to determine free allocation (see Section 5 for further explanation).
- “Transitional” means that the free allocation is initially 30% of the quantity determined via the Union-wide harmonised free allocation rules and decreases from 2026 onwards to 0% (and thus no free allocation)¹⁰.
- Exceptions are made for installations in sectors which are deemed to be exposed to significant risk of carbon leakage, i.e. “an increase in greenhouse gas emissions in third countries where industry would not be subject to comparable carbon constraints”¹¹. Those installations will receive free allowances of 100% of the benchmark levels.

Phase 4 introduces a number of changes designed to further strengthen the EU ETS. This includes a change in approach for installations undergoing significant changes after the initial allocation has been made from one based on changes in the installation’s capacity (as used in Phase 3) to one based on changes in the installation’s activity levels. The main differences in approach are summarized in the table below.

Starting in 2021, the total cap on emission allowances will decrease annually by 2.2%, the Linear Reduction Factor (LRF). This will lead to 43% reduction of emissions in 2030 compared to 2005 (see Art.9 of the revised Directive). Fewer free allowances will be available than in Phase 3

⁷ <https://eur-lex.europa.eu/eli/dir/2003/87/2018-04-08>

⁸ Directive 2009/29/EC, recital 15

⁹ Article 10a(1) of the ETS Directive

¹⁰ With the exception of district heating sub-installations, see Section 5 for further explanation.

¹¹ Directive 2009/29/EC, recital 24

because of the annual higher reduction factor and because of a fixed share of total allowances to be auctioned (57% of total). The lower amount of available free allowances will be used in a more focused approach to avoid carbon leakage, including a phase out of free allocation after 2026 from 30% to 0 at the end of Phase 4 (2030) for less exposed sectors¹². In order to minimise the risk of triggering a factor established pursuant to Article 10a(5) of Directive 2003/87/EC (called Cross-Sectoral Correction Factor (CSCF) in Phase 3 and it could keep the same name), a buffer has been set up, so up to 3% of the allowances that are allocated for auctioning will be used to increase the maximum amount available before the CSCF applies. Note that where the phrase ‘the CSCF applies’ is used, this means the CSCF is below 1 (or 100%).

Allocation will be done in two rounds, once for the period 2021-2025 and again for the period 2026-2030.

Table 1: Main differences between EU ETS in Phase 3 versus Phase 4

Phase 3	Phase 4
8-year trading period	10-year trading period, with two allocation periods of 5 years each
Cap reduced by 1.74% per year	Cap reduced by 2.2% per year
Allocation at the start of the trading period	Allocation in 2 rounds, for a 5-year period each
Transitional free allocation decreasing from 80% of calculated allocation in starting year to 30% in 2020 ¹³	Transitional free allocation decreasing from 30% of calculated allocation after 2026 to 0% in 2030 ^{12,13}
Allocation changes as a result of significant capacity changes	Allocation changes as a result of significant changes in activity level
New entrants include Greenfield plants ¹⁴ and significant capacity extensions	New entrants only include Greenfield plants ¹⁴
Amount of auctioned allowances depends on how many allowances are allocated for free and limits based on the share of industry in emissions	Amount of auctioned allowances is fixed at 57% of the total amount of allowances, however 3% can be moved to free allocation to avoid the use of a cross sectoral correction factor
Carbon leakage status is determined by criteria for carbon cost and/or trade intensity	Carbon leakage status is determined by trade intensity multiplied with the emission intensity divided by the gross value added
Legal basis: <ul style="list-style-type: none"> • 2009 ETS Directive • CIMs Decision • NIMs list/table 	Legal basis: <ul style="list-style-type: none"> • 2018 ETS Directive • FAR regulation • Allocation change implementing act • Carbon leakage delegated act • Benchmark update implementing act • NIMs list

¹² With the exception of District Heating (DH) sub-installations, newly introduced in Phase 4. For these sub-installations, free allocation will remain at 30%, also after 2026.

¹³ For sectors not deemed exposed to a significant risk of carbon leakage.

¹⁴ Defined by the date at which the permit has been obtained

3 Overview of the allocation process

This section describes the process to determine the amount of free allocation for eligible installations and the FAR rules guiding that process.

The starting point of the allocation process is the Union-wide and fully harmonised Free Allocation Rules¹⁵ (FAR), the allocation methodology regulation adopted by the Commission that lays down the basic elements of the harmonised free allocation methodology in Phase 4.

The FAR regulates:

- Eligibility criteria for free allocation;
- Definitions of sub-installations (which determine how to split an installation into different sub-installations, if applicable);
- Rules for determining historical activity levels per sub-installation;
- Sub-installation system boundaries (for product benchmarks)¹⁶;
- Rules for determining attributable emissions per sub-installation for update of the benchmark values;
- Rules for the application of the carbon leakage exposure factor;
- Rules in case of cross-boundary heat flows;
- Rules for data collection, monitoring & reporting.

A number of elements of the allocation methodology are further elaborated in subsequent acts:

- The updated Benchmark values to apply in the calculation of sub-installation allocation are provided by the Benchmark Update Implementing act;
- The updated Carbon Leakage List (CLL), identifying the sectors and activities eligible for 100% free allocation in Phase 4¹⁷;
- The rules defining how changes in a (sub-) installation's activity levels affect its allocation are established in the Activity Level Change Implementing act.

Based on the FAR, it is the task of the Member States to calculate the preliminary annual allocation on a sub-installation level. The Commission provides an electronic template to facilitate data collection in a harmonised approach. On the basis of the collected data, each Member State shall submit to the Commission the list of all incumbent installations covered by the EU ETS Directive within its territory by the 30 September 2019 for the period 2021-2025 and the 30 September 2024 for the period 2026-2030. Hereinafter we refer to that list as the NIMs (National Implementation Measures) list. The NIMs list shall also include installations that are

¹⁵ Commission Delegated Regulation [XX/XX](#) 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 the Council

¹⁶ Annex 1 of the FAR

¹⁷ Delegated act XX

classified as electricity generators¹⁸ as well as the so called 'small emitters' referred to in Articles 27 and 27a of Directive 2003/87/EC.

The Commission will collect the NIMs lists of all Member States and assess the inclusion of each installation in the list and the data submitted for each installation. Based on these data, the Commission will calculate the updated benchmark values, which the Member States will use to determine the preliminary annual allocation per installation considering the benchmark values and the CL status of each sub-installation. The next step is the determination of the CSCF¹⁹ by the Commission, which will be applied the same for all installations. Regarding eligible electricity generators, for the years that the CSCF is applied the linear reduction factor is not applied. The need for, and value of, the CSCF can differ each year in the fourth trading period and in each allocation period.

The Member States will calculate the final annual allocation and notify it to the Commission.

The same procedure will be followed in the preparation of initial allocation of each allocation period.

Compared to Phase 3, the process in Phase 4 contains one additional step, aimed at updating the benchmark values to be used in the calculation of the preliminary allocation levels at the sub-installation level on the basis of the data collected for the NIMs.

Therefore, the NIMs submission will take place in an iterative process, as shown in **Figure 2**, with a number of submissions of data by competent authorities to the Commission as well as various calculation steps, to arrive at the final allocation for all installations included in the list. These are listed below, also indicating the form of the various submissions (for an overview of terminology used, see also Table 2):

- Submission of the NIMs list (without allocations) by the competent authorities by 30 September 2019 for the first allocation period, providing the baseline data needed for both the benchmark update and the allocation calculations, as submitted by operators in the baseline data reports;
- Calculation of the updated benchmark values by the Commission based on the data contained in the NIMs list;
- Calculation of the preliminary allocation by the Member States based on the updated benchmark values;
- Submission of the NIMs list with preliminary allocations by the Member States;
- Calculation of the Cross-Sectoral Correction Factor CSCF by the Commission (if applicable);
- Calculation of the final allocation by the Member States, taking into account the CSCF and the LRF when applicable;

¹⁸ For the classification of electricity generators please refer to “*Guidance paper to identify electricity generators*” discussed by the EC and the Member States on 18 March 2010 for guidance, https://ec.europa.eu/clima/sites/clima/files/ets/docs/guidance_electricity_generators_en.pdf

¹⁹ Formally ‘any factor established pursuant to Article 10a(5) of Directive 2003/87/EC’

- Submission of the NIMs list with final allocations by the Member States.

The final allocations will be laid down in Commission decisions. **Figure 2** presents the main process leading to the final total annual amount of free allowances to installations.

Table 2 Terminology of different submissions and the templates used in the allocation process

Submission of	Template used	Stage in the process used
Baseline data report	Baseline data template	Data gathering for benchmark update and allocation calculation for incumbents in preparation of (1st) NIMs
NIMs List (no allocations)	NIMs List template	Updating of benchmark values in preparation of preliminary allocation calculation
NIMs List with preliminary allocations	(expanded) NIMs List template	Calculation of preliminary allocation for incumbents
NIMs List with final allocations	(expanded) NIMs List template	Calculation of final allocation for incumbents after CSCF is established
New entrant data report	New entrant data template	Application for free allocation by new entrants (after NIMs)
Annual activity level report	ALR template	Monitoring the need for changes in free allocation for incumbents due to a change in activity level (after NIMs)

The first NIMs list (without allocation) will contain data at sub-installation level over the five calendar years preceding its submission on the following, in line with FAR Article 14:

- Activity levels;
- Transfers of heat and gases;
- Electricity production; and
- Emissions.

The second submission by the Member States (the “NIMs list with preliminary allocations”) will contain:

- The data of the previous submission (including all corrections required by the Commission, if any);
- The preliminary annual number of emission allowances allocated for free per **sub-installation**;
- The preliminary total annual amount of emission allowances allocated for free per **installation** (i.e. sum of the preliminary total annual amount of emission allowances per sub-installation).

The final submission by the Member States (the “NIMs list with final allocations”) will contain data from the previous submission as well as the final allocation, after application of the CSCF and LRF when applicable for each of the installations included in the list.

See Section 5 of this Guidance document and Guidance document 2 on allocation at the installation level for detailed guidance on how the allocation is calculated.

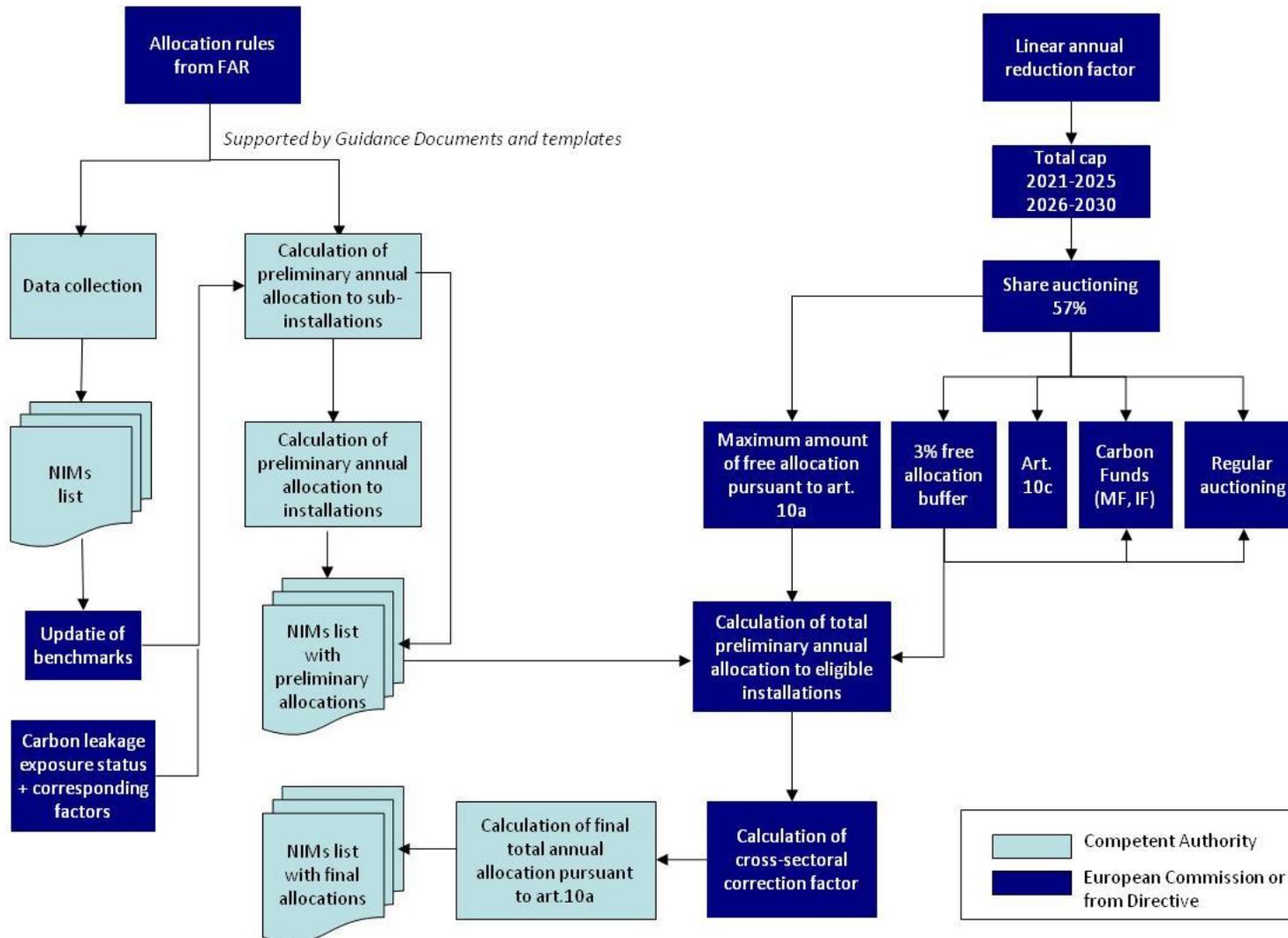


Figure 2: Process diagram of determination of final free allocation to installation. For certain installations (e.g. district heating) the Linear Reduction Factor may apply. This is not shown in the Figure for reasons of legibility.

4 Relevant installations

This section gives a general overview of the installations eligible for free allocation under Article 10a of the EU ETS Directive in Phase 4.

4.1 Which installations must be in the NIMs list?

The National Implementation Measures (NIMs) will list all “incumbents” of the EU ETS²⁰, whether they receive free allocation under Article 10a of the Directive or not, i.e. all installations that:

- Are part of the sectors included in the EU ETS in Phase 4
To make sure that an installation is within the scope of the EU ETS, *please refer also to Guidance on Interpretation of Annex I of the EU ETS Directive (excl. aviation activities)*. Installations opted-in under Article 24 of the Directive are also to be included;
AND
- Have obtained a GHG permit on or before 30 June 2019 for the period 2021-2025, or on or before 30 June 2024 for the period 2026-2030.

In case it is absolutely sure that an installation will close before the start of Phase 4, relevant Competent Authorities might not require the template filled by those operators. New installations that do not yet have a greenhouse gas permit and are under construction, commencing operations after the baseline period but before the start of Phase 4 do not need to be included in the NIMs list. They will be considered as new entrants at a later stage. *For more details see Guidance Document 7 on new entrants.*

Incumbent electricity generators need to be included in the NIMs list, but do not have to submit the data required under Article 14(2) of the FAR, unless they wish to receive free allocation under Article 10a of the Directive for heat produced which is not used to produce electricity. Similarly, included non-electricity generators only need to submit the required data if they apply for free allocation.

Small emitters that a Member State may choose to exclude from the EU ETS pursuant to Articles 27 and 27a of the EU ETS Directive have to be listed as well. As the Commission may assess and, where appropriate reject such exclusions, these (very) small emitters have to be considered as installations within the EU ETS in this first step.

(Sub-)installations with a start of normal operation after January 1st in 2018 (respectively 2023) will not have operated for a full calendar year during the baseline period, and will therefore not have all necessary data available for their application. In such cases, the (sub-)installation should be included in the NIMs with no allocation, and the allocation will be calculated at a later stage. *For more information on (sub-)installations not operating during the full baseline period, see*

²⁰ For the formal definition of incumbents see Article 2(1) of the FAR (Commission Delegated Regulation [XX/XX](#) on “Transitional Union-wide rules for harmonized free allocation of emission allowances pursuant to Article 10a(1) of Directive 2003/87/EC)

section 6.2 of Guidance Document 2 on allocation methodologies.

Installations that join the EU ETS after 30 June 2019 or 30 June 2024 (defined as when they receive a GHG permit), respectively, so-called new entrants²¹, are not part of the NIMs for the corresponding allocation periods. *For more guidance on the allocation to new entrants, see Guidance document 7.*

Table 3 below shows an overview of which installations (and sub-installations) need to be included in the NIMs and which need to submit the data required under Article 14 of the FAR.

Table 3 Overview of (sub-) installations that need to be included in the NIMs and that have to submit data as required under Article 14 of the FAR

Installation	To be included in NIMs?	To submit data
Incumbent	Yes	Yes, if applying for free allocation
Incumbent not applying for free allocation	Yes	No
Incumbent electricity generator	Yes	Yes, if applying for free allocation under article 10a of ETS directive
Installations to be opted in under Art24 of ETS Directive	Yes	Yes
Installations to be opted out under Art.27/27a of ETS Directive	Yes	Yes, if they do not want to risk to be re-introduced in ETS the same allocation period with no free allocation No, if they accept the risk to be re-introduced in ETS with no free allocation or they know that they are well below the threshold
Incumbent, with a Historical Activity Level of 0	Yes	Yes, if applying for free allocation (with HAL = 0)
Installations with GHG permit obtained before/on 30 June 2019 (or 2024)	Yes	Yes, if applying for free allocation
Installation with GHG permit that has not started operation yet	Yes	No
New sub-installation in incumbent, established on/before 30 June 2019 (or 2024) with first calendar year of activity data available by that date	Yes	Yes, if applying for free allocation
New sub-installation in incumbent without a first year of activity date by 30 June 2019 (or 2024)	Yes	No

²¹ For the definition of a 'new entrant' please refer to Article 3(h) of Directive 2003/87/EC

New sub-installation in incumbent starting after 30 June 2019 (or 2024)	No, will be addressed by ALC rules	No
Installation under construction, without a GHG permit, starting after the baseline period but before the start of the allocation period	No, will be new entrant	No
Installation under construction, without a GHG permit, starting after the start of the allocation period	No, will be new entrant	No
Existing installations that join the EU ETS (get a GHG permit after June 30)	No, will be new entrant	No
Incumbent that will close before start of allocation period	Yes	No

4.2 Who receives free allocation?

All installations in the NIMs list are in principle eligible for free allocation, except installations that only produce electricity or installations operated for the capture, transport and storage of CO₂. Eligible installations that want to receive free allocation need to submit an application in line with Article 4 of the FAR to their competent authority. Note that from the fourth phase onwards, operators may choose to renounce their free allocation (e.g. if they consider efforts for monitoring, reporting and verification of relevant data exceeding the benefit of receiving free allocation). Installations which do not provide the data requested by Article 11(1) of the Directive before 30 May 2019 or the deadline set by the Member State cannot be granted free allocation.

For further details on eligibility criteria for product benchmarks, heat benchmarks (including district heating), fuel benchmarks and the process emission approach, please refer to Guidance Document 2 on allocation methodologies. For the eligibility of waste gases, refer to Guidance Document 8.

Note, though, that even if they are not eligible for free allocation, installations producing electricity only or installations operated for the capture, transport and storage of CO₂ do need to be included in the NIMs list.

“New entrants”, which are not included in the NIMs, may also get free allocation. *For the definition of and specific rules for new entrants, Guidance Document 7 on new entrants and closures gives further explanation.* Note that new sub-installations in incumbent installations are not considered new entrants in the revised EU ETS Directive. They are also not included in the NIMs. *For an elaboration of how allocation is established in the case of such new sub-installations, see the Guidance Document on activity level changes.*

5 Allocation methodology

At the detailed level, different allocation rules may apply to different parts of an installation, depending on their purpose. Therefore, so-called 'sub-installations' are distinguished for the purpose of determining the allocation. The allocation at the installation level is determined by summing the allocation over the sub-installations. This section gives a general overview of the allocation methodology and the approaches applied to different type of sub-installations. *For a more detailed explanation, see Guidance Document 2 on allocation methodologies (at installation level) and Guidance Document 3 on data collection.*

5.1 Overview of allocation approaches for sub-installations

In general, industrial production processes have fuel and/or heat as input, and a product and/or heat or fuel as output (Figure 3). Certain processes can also result in process emissions.

Electricity may also be an energy input to the industrial process, but in terms of determining free allocation it is in most cases not relevant. An exception to this rule is the electricity consumption by production processes covered by product benchmarks in which the use of electricity and fuels are exchangeable. For more information on this topic see Section 3.1 of Guidance Document 2 on Allocation Methodologies.

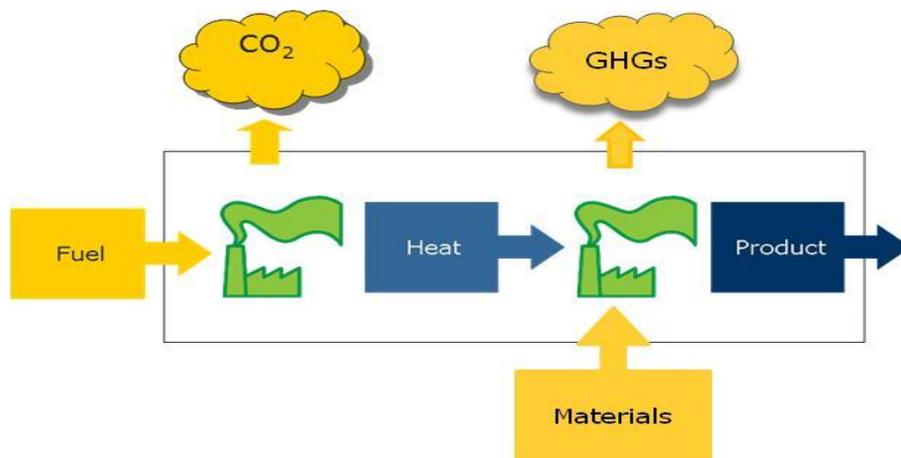


Figure 3: General picture of industrial production process

Each installation that is eligible for free allocation (see Section 4.2) will receive allocation based on at least one of the following approaches:

- **Product benchmarking** (allowances or EUAs²² / t product); allocation is based on the production of products.

²² Used interchangeably in the guidance documents.

- **Heat benchmarking** (allowances / TJ of net measurable heat); allocation is based on the amount of measurable heat²³ consumed or exported to non-ETS installations or entities.
- **Fuel benchmarking** (allowances / TJ of fuel used); allocation is based on the amount of fuel consumed.
- **Process emissions approach**; allocation is 97% of historical emissions.

Note that the above refers to the benchmarks used, not the sub-installations. There is a difference in the case of the heat benchmark, which is applied to 2 different sub-installations. Heat exported for district heating (DH) purposes is allocated to a different sub-installation than the heat consumed on-site or exported for non-DH purposes. Allocation for DH sub-installations is based on the amount of measurable heat exported for the purpose of DH, using the same heat benchmark. *For more detail on the different district heating-related concepts and terminology used, see Guidance document 2 on allocation at the installation level.*

The free allocation of allowances will be based to the extent feasible on Union-wide ex-ante product benchmarks, as this provides the broadest incentive for emission reductions. However, not in all cases product benchmarks can be defined, e.g. because of too diverse or changing product mix. In these cases, the so-called ‘fall-back’ approaches based on the heat benchmark, the fuel benchmark or the process emissions approach are used, in the order listed above as required by Art.10(2) of the FAR.

Using these approaches, the preliminary annual number of emission allowances per sub-installation can be calculated for all sources of emissions in the EU ETS that are eligible for free allocation. Table 4 summarizes the general characteristics of each allocation methodology. The table also shows when which methodology should be used. Proper use of the approaches ensures that all emissions are covered by one and only one methodology.

For more detailed conditions on the application of the allocation methodologies, we refer to Guidance Document 2 on allocation at the installation level.

²³ See Annex B for a definition of measurable heat

Table 4: Characteristics of the allocation approaches

Approach	Value	Unit	Conditions	Relevant emissions
Product benchmark	See BMU for updated values	allowances / unit product	<ul style="list-style-type: none"> Product benchmark available 	Emissions within system boundaries of product as referred to in Annex I of the FAR
Heat benchmark (incl. for district heating)	Updated value: XX	allowances / TJ	<ul style="list-style-type: none"> No product benchmark available Heat is measurable Heat is not used to produce electricity Heat is not produced from electricity 	Emissions relating to production of the measurable heat consumed or exported to a non-ETS installation, not covered by a product benchmark
Fuel benchmark	Updated value: XX	allowances / TJ of fuel	<ul style="list-style-type: none"> No product benchmark available Heat is not measurable Fuel is combusted 	Emissions originating from the combustion of fuels, not covered by product or heat production benchmark.
Process emission approach	97 % of historical emissions (allowances)		<ul style="list-style-type: none"> No product benchmark available Emissions are not resulting from combustion of fuel Emissions are “process emissions”²⁴ 	All process emissions not covered by previous approaches

²⁴ According to Article 2(10) of the FAR. For more details, please also refer to guidance document on allocation methodologies.

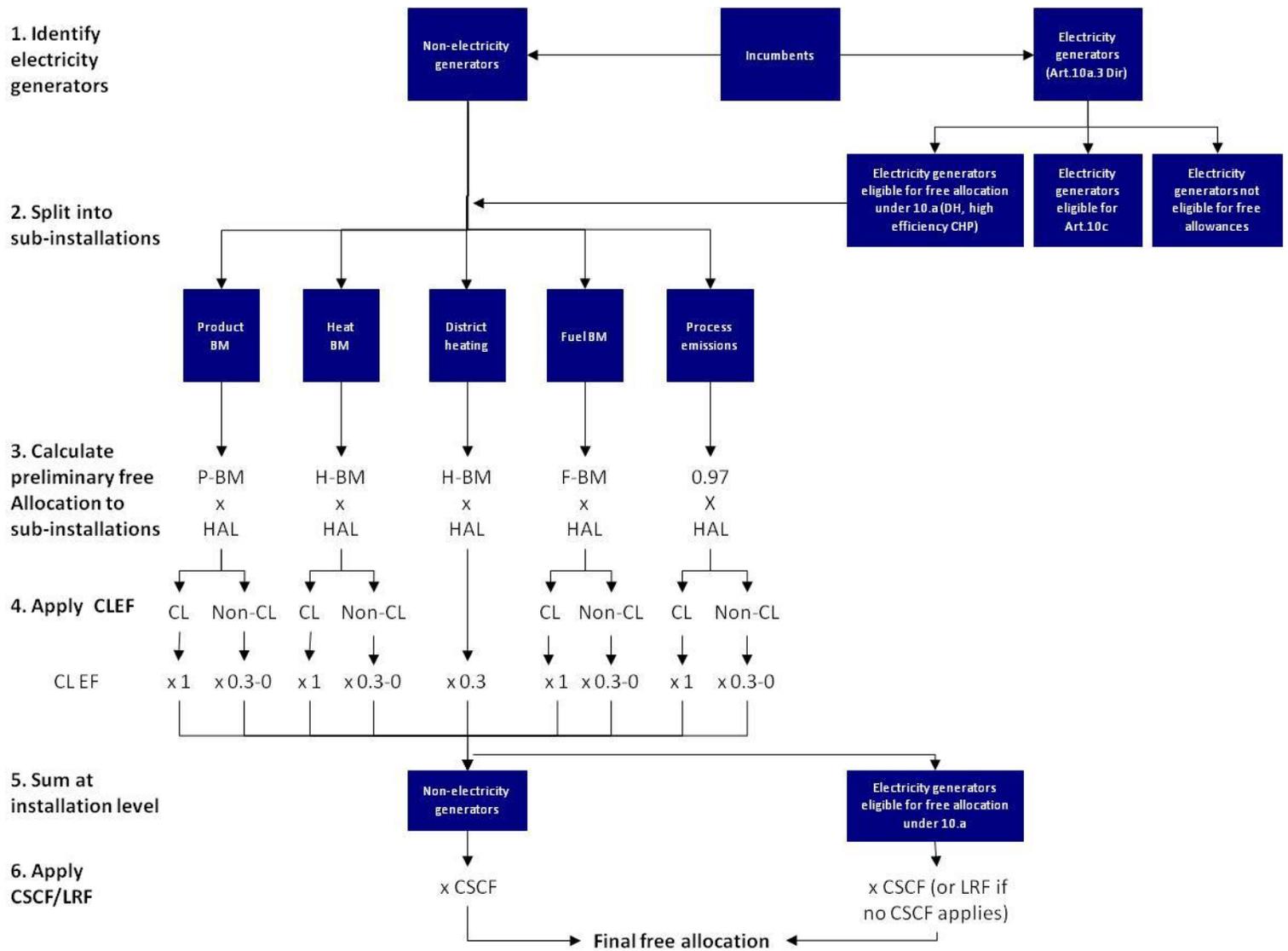


Figure 4 Steps in the calculation of the free allocation at installation level

5.2 Split into sub-installations

To correctly apply the relevant allocation methodology in the right order, operators have to split their installation(s) into so-called sub-installations.

A sub-installation means all inputs, outputs and corresponding emissions related to a specific allocation approach. The boundaries of a sub-installation establish the boundaries of a specific mass and energy balance, and are not necessarily defined by boundaries of physical process units²⁵. These inputs and outputs should take in due account only relevant source streams²⁶, as monitored according to the Monitoring & Reporting Regulation (MRR) and listed within the monitoring methodology plan, if any. This means that non-ETS activities shall not be taken into account when splitting the installation into sub-installations. A robust knowledge of the scope of the EU ETS and of the MRR is required when performing the split into sub-installations exercise. *Guidance Document 2 on allocation methodologies provides further information on this topic.* Note that for the purpose of the benchmark value update, in some cases additional source streams must be defined which are not included in the monitoring plan under the MRR. This is relevant where a source stream is produced in one sub-installation and consumed in another one (e.g. waste gases, or coke produced in the coke sub-installation and consumed in the “hot metal” sub-installation).

For an installation that produces more than one product with a product benchmark (suppose n product benchmarks are applicable), the same number (n) of “sub-installations” needs to be defined, with the system boundaries of each sub-installation matching with the boundaries of the respective product benchmark. For these sub-installations, the product benchmark approach should be applied, including the application of the corresponding carbon leakage exposure factor.

The remaining part of the installation (the part for which no product benchmarks apply) can be divided into a maximum of 7 sub-installations (fall back sub-installations): one sub-installation deemed exposed to a significant risk of carbon leakage and one deemed not exposed to a significant risk of carbon leakage, for each fall-back methodology (see also paragraph 5.3.1), plus a separate district heating (DH) sub-installation, as is shown in the table below. District heating is not considered to be exposed to a significant risk of carbon leakage, so only one type of sub-installation is distinguished. However, in the calculation of the preliminary amount of free allowances, DH sub-installations are treated differently than non-Carbon leakage installations, in that they will continue to receive 30% of the calculated amount of free allowances under art.10a (CLEF = 0.3) also after 2026.

²⁵ See the FAR for formal definitions of five types of sub-installations: a product benchmark sub-installation (Article 2(2)), a heat benchmark sub-installation (Article 2(3)), a district heating sub-installation (Article 2(5)), a fuel benchmark sub-installation (Article 2(6)) and a process emissions sub-installation (Article 2(10)).

²⁶ a 'source stream' means a specific fuel type, raw material or product giving rise to emissions of relevant greenhouse gases at one or more emission sources as a result of its consumption or production.

Table 5: Maximum number of possible sub-installations in case of fall-back approaches

Allocation Methodology	Carbon leakage	Non-carbon leakage	District heating
Heat benchmark	1	1	1
Fuel benchmark	1	1	
Process emissions approach	1	1	

In principle, heat is eligible for free allocation if it can be regarded as produced within an EU ETS installation, provided it is not produced from electricity. This is in particular likely to be the case for measurable heat directly linked (combustion process or exothermic production process) to source streams which are contained in the monitoring plan (MP) of an installation covered by the EU ETS.

Heat is in particular not eligible in the following cases:

- The export or consumption of heat produced in the nitric acid production process is not eligible for free allocation as this heat is already taken into account by the nitric acid benchmark. (see Art 26 (5) of the FAR)
- The consumption of heat produced by a non-ETS installation (not covered by a GHG permit) is not eligible for free allocation. (see Art. 28b and Art. 32 of the FAR)

The export or consumption of heat used for electricity generation is not eligible for free allocation (see Art. 3 (c) and 28b of the FAR).

Note that after performing the attribution of all inputs, outputs and emissions to sub-installations, some inputs, outputs and emissions will remain not attributed to any sub-installation, as these elements are not eligible for free allocation. This applies to:

- Fuels and/or measurable heat used for electricity production;
- Measurable heat produced in nitric acid sub-installations or imported from non-ETS entities;
- Emissions related to heat exported to EU ETS installations;
- Waste gases or fuels flared for purposes other than safety flaring²⁷.

Example: Carbon leakage: more than one sub-installation possible per fall-back approach

Consider a fictitious dairy plant with a boiler that produces measurable heat for both the production of milk powder (deemed exposed to carbon leakage in Commission Decision xxx²⁸) and for a liquid milk sterilization process (not deemed exposed to carbon leakage in Commission Decision xxx). Neither of the products is covered by a product benchmark, therefore the heat benchmark methodology should be applied if possible. Since there is measurable heat consumed in these production processes, indeed this fall-back approach is applicable. However, the heat is consumed by two production processes, each with a different carbon leakage status. Therefore, the consumed heat (produced by the boiler) has to be split into two sub-installations: one for

²⁷ For additional information on this topic, see Guidance Document 8 on waste gases and process emissions sub-installations.

²⁸ URL...

each carbon leakage status.

If at least 95% of the total heat consumed in the installation has the same carbon leakage status, it can be assumed that the remaining amount of consumed heat (5% or less) has also this same carbon leakage status. The same “de minimis” rule applies to fuel benchmark sub-installations and to process emissions sub-installations. The rule is explained in more details *in Guidance document 2 on allocation at the installation level*.

In fact, this applies to all inputs, outputs and corresponding emissions referred to in the definition of ‘heat benchmark sub-installation’ (see Article 2(3) of the FAR). The same logic also applies to fuel and process emissions sub-installations relating to products with different carbon leakage statuses.

See Guidance Document 3 on Data Collection for details on how to apply a distribution key to attribute activities to more than one sub-installation.

Due care should be taken that:

- No overlap occurs between the sub-installations (no double-counting)
- The corresponding inputs (fuel, heat, etc.) and outputs (products, heat, electricity, etc.) have all been taken into account.

5.3 Correction factors

The preliminary annual amount of allocation determined at sub-installation level may be adjusted by several correction factors, which are summarised in the table below and briefly described in the following sub-sections.

Table 6 Overview of correction factors that may be applied in the calculation of the final allocation

Correction factor	Carbon leakage status	Determined by	value	Applicability
CLEF	CL	Directive	1.000	To all sub-installations deemed exposed to a significant risk of carbon leakage in all years
	Non-CL	Directive	0.300 to 0.000	To all sub-installations not deemed exposed to a significant risk of carbon leakage, decreasing after 2026 from 0.300 to 0 in 2030
		Directive	0.300	To district heating sub-installations in all years
CSCF		Commission	To be determined	To all incumbent installations eligible for free allocation under Article 10a in years when the preliminary free allocation exceeds the quantity of free allowances available as determined by the Directive

LRF ²⁹	Directive and FAR	2.2%	Electricity generators, eligible for free allocation (district heating, high efficiency CHP) in case no CSCF applies in a given year. The LRF applies as of 2013, with its value increasing to 2.2% in 2021
LRF	FAR	2.2%	New entrants, starting from 1 st year of each allocation period For new entrant electricity generators, eligible for free allocation, this applies only in case no CSCF applies in a given year

5.3.1 Carbon leakage exposure factor

Detailed explanation can be found in Guidance Document 2 on allocation methodology at the installation level.

The preliminary annual amount of emission allowances is multiplied by the so-called “carbon leakage exposure factor” (CLEF).

The Commission has established a (preliminary) list of sectors and sub-sectors deemed to be exposed to a significant risk of carbon leakage. The carbon leakage exposure factor (CLEF) used for allocation to these sectors is 1.00 for all years.

For allocation to sectors not on this list, the carbon leakage exposure factor is 0.30 until 2026, declining to 0 in 2030. This implies that from then on installations that are part of these sectors will each year receive fewer allowances than the year before.

Table 7 gives an overview of carbon leakage exposure factors:

Table 7. Overview of carbon leakage exposure factors

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Exposure factor (CLEF) when deemed exposed to a significant carbon leakage (CL) risk	1	1	1	1	1	1	1	1	1	1
CLEF when deemed not exposed to a significant CL risk	0.300	0.300	0.300	0.300	0.300	0.300	0.225	0.150	0.075	0
CLEF for district heating	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300

After application of the Carbon Leakage Exposure Factor either the Cross-Sectoral Correction Factor or the Linear Reduction Factor may be applied.

²⁹ See *Guidance document 2 on allocation at the installation level* for an overview of the numeric values of the LRF over the years.

5.3.2 Cross-sectoral correction factor

To all installations that are eligible for free allowances under Article 10a of the revised Directive the cross-sectoral correction factor should be applied³⁰, if necessary. This includes non-electricity generators as well as electricity generators that are eligible for free allowances under Article 10a(4), i.e. high-efficiency CHP and district heating.

A cross-sectoral correction factor could be needed to ensure that the total amount of free allocation does not exceed the maximum amount of free allocation pursuant to art. 10a(5) and 10a(5a) of the ETS Directive³¹. The preliminary free allocation could therefore be different from the final free allocation that operators would receive.

The need for, and if applicable the value of, a cross-sectoral correction factor will be assessed by the Commission after receiving all NIMs, on the basis of the preliminary free allocation, using the updated benchmark values and applying the relevant carbon leakage factor. If applied, the cross-sectoral correction factor would be identical for all incumbent installations. The CSCF does not apply to new entrants. The need for, and value of, the factor could differ for different years in the fourth trading period.

See also Section 2 of this Guidance Document and Section 4 of Guidance Document 2 for the equations used in the application of the cross-sectoral correction factor.

5.3.3 Linear reduction factor

In line with Article 9 of the revised Directive, the total amount of allowances issued for free shall decrease each year from 2021 in a linear manner by a factor of 2.2%. For new entrants, the preliminary total annual amount of allocation will therefore be reduced each year with 2.2% of the preliminary total annual amount of allocation with the first year of each allocation period as the reference year. For electricity generators that are eligible for free allocation (district heating, high efficiency CHP), the LRF only applies in case no CSCF applies in a given year (Art.10.a(4) of the revised Directive). The LRF is not applied to the preliminary allocation of other incumbent installations.

Table 8 shows the values for the LRF applicable in each year of Phase 4, distinguishing electricity generators and new entrants in each of the allocation periods.

³⁰ This means the value of the CSCF is below 1 (or 100%) when used in the calculation of final free allocation.

³¹ Maximum amount of free allocation pursuant to Article 10a(5) and (5a) of the revised ETS directive = total ETS cap * (1 – the auctioning share (0.57) + the free allocation buffer (0.03)). Where the maximum amount (57%) is not used in a year, the rest is carried forward to the following years.

Table 8 The Linear reduction factor values for each year

Year	Linear reduction factor	
	Electricity generators	New entrants
2021	0.8562	1.000
2022	0.8342	0.9780
2023	0.8122	0.9560
2024	0.7902	0.9340
2025	0.7682	0.9120
2026	0.7462	1.000
2027	0.7242	0.9780
2028	0.7022	0.9560
2029	0.6802	0.9340
2030	0.6582	0.9120

See Section 4 of Guidance Document 2 for the equations used in the application of the linear reduction factor.

Annex A Timeline - key dates from the revised EU ETS

XX	The Commission adopts Union-wide rules for harmonised free allocation of emission allowances ³² in the form of a delegated act, followed by a 2-month scrutiny period. ³³
30 May 2019	Deadline for application ³⁴ for free allocation for 2021-2025 with Member States (Member States may set diverging deadline which is at maximum one month earlier or later)
30 June 2019	Date which separates “new entrants” and “incumbents” for the first allocation period in Phase 4. See section 4.1 of this guidance document. ³⁵
30 September 2019	Submission of National Implementation Measures by MS ³⁶ for the first allocation period in Phase 4.
28 February 2021	Issuance of the first quantity of free allowances of the first allocation period in Phase 4 to installations. ³⁷
30 May 2024	Deadline for application for free allocation for 2021-2025 with Member States (Member States may set diverging deadline which is at maximum one month earlier or later)
30 June 2024	Date which separates “new entrants” and “incumbents” for the second allocation period in Phase 4.
30 September 2024	Submission of National Implementation Measures by MS ³⁸ for the second allocation period in Phase 4.
28 February 2026	Issuance of the first quantity of free allowances of the second allocation period in Phase 4 to installations. ³⁹

³² Article 10a(1) of the revised ETS Directive

³³ It will enter into force if no objection is raised during the scrutiny period.

³⁴ Defined as the submission of the operator’s verified NIMs baseline report and MMP.

³⁵ Article 3h of the revised ETS Directive

³⁶ Article 11(1) of the revised ETS Directive

³⁷ Article 11(2) of the revised ETS Directive

³⁸ Article 11(1) of the revised ETS Directive

³⁹ Article 11(2) of the revised ETS Directive

Annex B List of definitions

This annex provides a list of definitions of concepts relevant for free allocation in Phase 4 of the EU ETS. Shown are both the formal definitions provided in the legal texts of the revised EU ETS Directive or the FAR (in “”) as well as informal explanations. The latter have been developed to facilitate understanding among the readers of the Guidance documents. The informal explanations in this Annex do not replace the legal definitions and have no legal status. Below, first the formal definition is given (if available), including the relevant article number, followed by the informal explanation, where relevant.

Allocation period

FAR Article 2(15): “The five-year period starting from 1 January 2021 and each subsequent period of five years.”

Phase 4 consists of 2 allocation periods, the first running from 1 January 2021 until 31 December 2025, the second running from 1 January 2026 until 31 December 2030.

Allowance

Directive Article 3(a): “An allowance to emit one tonne of carbon dioxide equivalent during a specified period, which shall be valid only for the purposes of meeting the requirements of this Directive and shall be transferable in accordance with the provisions of this Directive.”

Allowance that can be used to cover one tonne of GHG emissions of an EU ETS participant to comply with EU ETS obligations and which is transferable (i.e. tradable).

Annex I activities

List of activities in the Annex I of the EU ETS Directive, which defines “categories of activities to which the Directive applies”. In other words: Annex I defines activities and activity thresholds determining which installations should be included in the EU ETS.

Combustion

Directive Article 3(t): “Any oxidation of fuels, regardless of the way in which the heat, electrical or mechanical energy produced by this process is used, and any other directly associated activities, including waste gas scrubbing.”

Competent Authority

Competent Authority or Authorities as designated under Article 18 of Directive 2003/87/EC. Each Member State can have one or more Competent Authorities.

District Heating

FAR Article 2(4): “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.”

Heat exported through a network to outside the EU ETS used for space heating, cooling or domestic hot water.

District heating sub-installation

FAR Article 2(5): “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.”

A sub-installation defined within an EU ETS installation to calculate the free allocation for which the installation is eligible due to the export of heat for the purpose of district heating.

Electricity Generator

Directive Article 3(u): “An installation that, on or after 1 January 2005, has produced electricity for sale to third parties, and in which no activity listed in Annex I is carried out other than the ‘combustion of fuels’.”

Dedicated electricity producers (with a holding account in the EUTL) that produce and sell electricity and may produce heat, other forms of energy or products, provided that they are not linked to activities listed in Annex I. This means that an installation producing electricity used by the same installation for the production of products listed in Annex I is not considered an electricity generator. Only if (part of the) electricity is sold, they are considered electricity generators. For this purpose, the period 2005 to 2018 included should be considered. For more details, see the *Guidance Document to Identify Electricity Generators*⁴⁰.

EU ETS Directive

Directive 2003/87/EC, most recently amended by Directive 2018/410/EC, referred to in this document as the so-called ‘revised EU ETS Directive’.

Heat benchmark sub-installation

FAR Article 2(3): “Inputs, outputs and corresponding emissions not covered by a product benchmark sub-installation relating to the production as far as not produced from electricity, the import from an installation - covered by the EU ETS, or both, of measurable heat which is

- 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 other than district heating with the exception of the export for the production of electricity.”

A sub-installation defined within an EU ETS installation to calculate the free allocation the installation is eligible for due to the consumption of measurable heat (when it is not used to

⁴⁰ https://ec.europa.eu/clima/sites/clima/files/ets/docs/guidance_electricity_generators_en.pdf

produce products for which product benchmarks apply or to produce electricity) or the export of heat to outside of the EU ETS for other purposes than district heating).

Fuel benchmark sub-installation

FAR Article 2(6): “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.”

A sub-installation defined within an EU ETS installation to calculate the free allocation for which the installation is eligible due to the consumption of fuel (when it is not used to produce products for which product benchmarks apply or to produce measurable heat covered by a heat benchmark or to produce electricity).

Incumbent

FAR Article 2(1): “Any installation carrying out one or more activities listed in Annex I of Directive 2003/87/EC or an activity included in the 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; or
- (b) 30 June 2024 for the period 2026-2030.”

Any installation within the scope of the EU ETS, which is not a new entrant.

Installation

Directive Article 3(e): “A stationary technical unit where one or more activities listed in Annex I (of the EU ETS Directive) are carried out and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution.”

A stationary plant or unit producing energy or products covered by the EU ETS and related activities that are technically connected to the plant or unit that impact emissions.

Measurable heat

FAR Article 2(7): “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.”

Measurable heat flows have all of the following characteristics:

- They are net, meaning that the heat content in the condensate or transfer medium returning to the heat supplier is subtracted;
- The heat flows are transported through identifiable pipelines or ducts;

AND

- The heat flows are transported using a heat transfer medium, e.g. steam, hot air, water, oil, liquid metals or salts;

AND

- The heat flows are or could be measured by a heat meter⁴¹ (where a heat meter is any device that can measure the amount of energy produced based upon flow volumes and temperatures).

New entrant

Directive Article 3(h): “Any installation carrying out one or more of the activities listed in Annex I, which has obtained a greenhouse gas emissions permit for the first time within the period starting from three months before the date for submission of the list under Article 11(1), and ending three months before the date for the submission of the subsequent list under that Article.”

Greenfield installations not in operation at the time the NIMs list is established, as defined by the date of the greenhouse gas emissions permit is obtained (with a cut-off date 3 months before NIMs submission).

Operator

Directive Article 3(f): “Any person that operates or controls an installation or, where this is provided for in national legislation, to which decisive economic power over the technical functioning of the installation has been delegated.”

The person that is authorised to make decisions for the installation.

Process emissions sub-installation

FAR Article 2(10): “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;

⁴¹ The FAR continues the use of the term “heat meter”, although the Measurement Instruments Directive uses the term “thermal energy meter”.

- (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 metalloid oxides or non-metal oxides such as silicon oxides and phosphates for a primary purpose other than the generation of heat;”

A sub-installation defined within an EU ETS installation to calculate the free allocation for which the installation is eligible due to the emission of process emissions). A process emissions sub-installation can be any of the following, when emissions occur outside the boundaries of a product benchmark:

1. Non-CO₂ greenhouse gas emissions (i.e. N₂O for specific sectors; see Annex I of the EU ETS Directive for the list of activities for which N₂O emissions are included in the EU ETS for Phase 4);
2. CO₂ emissions from any of the activities (a) to (f) listed in Art 2(10) of the FAR;
3. Emissions from the combustion of waste gases, if it is combusted to produce heat or electricity. Only emissions which are additional to the emissions that would occur if natural gas was used are taken into account. Also, only the “technically usable energy content” is considered, which means that a correction is applied to the resulting amount, based on the difference in efficiencies between the use of waste gas and the use of the reference fuel the amount. This type of process emissions refers to waste gases. See Guidance Document 8 on Waste Gases for more guidance on this topic.

'Process emissions' as defined by the Monitoring and Reporting Regulation are not necessarily coincident with 'process emissions' defined when dealing with sub-installation splitting for the purpose of allocation. In particular the process emissions from flue gas cleaning are considered part of the respective combustion process in the heat or fuel benchmark sub-installations. In case of deviations between the FAR and the MRR, the FAR is leading.

Product benchmark sub-installation

FAR Article 2(2): “Inputs, outputs and corresponding emissions relating to the production of a product for which a benchmark has been set in Annex I to Commission Delegated Regulation XXX.”

A sub-installation defined within an EU ETS installation to calculate the free allocation for which the installation is eligible in relation to the production of products for which product benchmarks apply.

Sub-installation

A sub-installation means all inputs, outputs and corresponding emissions related to a specific allocation approach. The concept is explained in detail in the Annex of *Guidance Document 5*.

Waste gases

FAR Article 2(11): “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 601/2012.”

Waste gases when they occur outside the boundaries of a product benchmark are gases containing incompletely combusted carbon produced as a result of any of activities (a) to (f) listed in Art 2(10) of the FAR. *See also Guidance Document 8 on Waste Gases for more guidance on this topic.*

Annex C List of abbreviations

ALC	Activity Level Change Implementing act
Adt	Air Dried Tonnes
AVR	Accreditation and Verification Regulation
BFG	Blast Furnace Gas
BOFG	Blast Oxygen Furnace Gas
BM	Benchmark
BMU	Benchmark Update Implementing act
CA	Competent Authorities
CCS	Carbon Capture and Storage
CCU	Carbon Capture and Utilisation
CEMS	Continuous Emissions Monitoring Systems
CEN	European Committee for Standardization
CHP	Combined Heat and Power
CIMs	Transitional Community-wide and fully harmonised Implementing Measures pursuant to Article 10a(1) of the EU ETS Directive
CLL	Carbon Leakage List, Delegated act
COG	Coke Oven Gas
CSCF	Cross Sectoral Correction Factor
CWT	CO ₂ weighted tonne
EC	European Commission
CLEF	Carbon leakage Exposure Factor

ETS	Emissions Trading System, here always referring to the EU ETS
EU ETS	European Emissions Trading System
FAR	Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a(1) of the EU ETS Directive
GDP	Gross Domestic Product
GHG	Greenhouse Gas
HAL	Historical Activity Level
IPPC	Integrated Pollution Prevention and Control
ISO	International Organization for Standardization
LRF	Linear Reduction Factor
MS	Member States
MRR	Monitoring and Reporting Regulation
MRV	Monitoring, Reporting and Verification
NCV	Net Calorific Value
NIMs	National Implementation Measures
RF	Reduction Factor
QA/QC	Quality Assurance / Quality Control
UCTE	Union for the Co-ordination of Transmission of Electricity
VCM	Vinyl Chloride Monomer

Annex D: Comparison with 2011 Guidance Document 1

The below table shows how the sections of the 2011 version of Guidance Document 1 correlate to the sections in the current, 2019 version, and where main topics are covered. Please note that the contents of corresponding sections in the different versions can be significantly changed as a result of new rules in the revised ETS Directive or the FAR regulation. '-' indicates that the topic was not included in the corresponding GD.

Content	Section in		Comments
	2011 GD1	2019 GD1	
Introduction	1	1	Updated from CIMS in 2011 GD to FAR in 2019 GD
Status of the Guidance Document	1.1	1.1	
Background of the Guidance Documents	1.2	1.2	Updated list of GDs to reflect 2019 scope and titles
Use of the Guidance documents	1.3	1.3	
Scope of this guidance document	1.4	1.5	
Additional guidance	1.5	1.4	
New elements in the allocation methodology	2	2	Called 'objective' in 2011 GD
Overview of allocation process	3	3	Updated process to include BM update step in data gathering and calculation of allocation as well as new elements/steps in FAR, and introduced standardised terminology for reports, templates and submissions in 2019 GD
Relevant installations	4	4	Included overview of requirements for different type of (sub-) installations regarding NIMs inclusion and data submission in 2019 GD
Which installations are in the NIMs?	4.1	4.1	

Who receives free allocation?	4.2	4.1	
Allocation methodologies	5	5	
Overview of approach at sub-installation level	5.1	5.2	Included new sub-installation type for heat exported for the purpose of district heating in 2019 GD
Background to product benchmarks	5.2	-	
Split into sub-installations	5.3	5.2	
Correction factors	5.4	5.3	Included overview of when/in which cases which correction factors apply in 2019 GD
Carbon leakage exposure factor	5.4.1	5.3.1	
Cross-sectoral correction factor	5.4.2	5.3.2	
Linear reduction factor	5.4.3	5.4.3	Table with LRF values moved from GD2 to GD1 in 2019 GDs
Timeline - key dates in revised EU ETS	Annex A	Annex A	
List of definitions	Annex B	Annex B	Included both formal definitions from ETS Directive and FAR, as well as informal explanations in 2019 GD
List of abbreviations	Annex C	Annex C	