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Guidance Document n°12
on the harmonised free allocation methodology for the EU ETS – 2024 revision

Guidance on conditionality of free allocation on implementation of energy efficiency improvement measures

Final version issued on 26 February 2024

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.

Table of contents

1 Introduction

1.1 Scope of this Guidance Document

This guidance document (GD) is part of a group of documents, which are intended to support Member States[1], and their Competent Authorities, in the consistent implementation throughout the Union of the allocation methodology for the second allocation period of Phase 4 of the EU ETS, following the revision of the EU ETS Directive and the Delegated Regulation of the Commission 2019/331 on "Transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of the EU ETS Directive" (FAR) [2], and the subsequent implementing acts. Guidance Document 1 on General Guidance to the Allocation Methodology provides an overview of the legislative background to the group of guidance documents. It also explains how the different Guidance Documents relate to each other and provides a glossary of terminology used throughout the guidance.

This GD focuses on the conditionality of free allocation with regard to implementation of energy efficiency measures. This concept was newly introduced in Article 10a(1) of Directive 2003/87/EC (EU ETS Directive)[3], and aims to further incentivise the reduction of GHG emissions. In this document the practical implementation of this rule is explained for operators, verifiers and Competent Authorities (CA).

1.2 Structure of this Guidance Document

This GD starts by giving an overview of the relevant legal text in the EU ETS Directive and the FAR. Section 3 includes general information on energy audits and certified energy management systems (EnMS), what type of energy efficiency recommendations can arise from the audits or systems and how these can be implemented.
Section 4 explains which recommendations made within the scope of an energy audit or certified energy management system are relevant in the context of the FAR. A decision tree gives an overview of all the conditions listed in FAR Article 22a(1) and highlights what evidence should be provided by the operator, when the conditions apply and what checks need to be carried out by the operator to demonstrate a particular condition applies.

[1] When the term 'Member States' is used in this Guidance Document, this includes the EFTA countries covered by the EU ETS as applicable.

[2] Commission Delegated Regulation (EU) 2019/331 of 19 December 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:

[3] Directive (EU) 2023/959 of the European Parliament and of the Council of 10 May 2023 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading system (Text with EEA relevance), PE/9/2023/REV/1, OJ L 130, 16.5.2023, p. 134–202, see: http://data.europa.eu/eli/dir/2023/959/oj

In section 5, information is provided on how the operator can recover its allowances if it can demonstrate implementation of energy efficiency measures at a later time. More detailed information will be provided once the legal basis in the ALC regulation is clear.[4]
Section 6 clarifies how evidence of the application of conditions in Article 22a FAR can be collected in a harmonised and consistent manner creating a level playing field between Member States. Section 7 focuses on aspects relevant for verifiers.

1.3 Where to find Guidance Documents

All the Commission's guidance documents, FAQs and templates in relation to the free allocation rules can be found under:

https://ec.europa.eu/clima/policies/ets/allowances_en#tab-0-1

In addition, the Commission has provided an extensive suite of guidance material in relation to MRVA (Monitoring, Reporting, Verification and Accreditation) under the EU ETS. The user of the current document is assumed to be familiar with at least the basic principles of MRVA.

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

Note on outstanding issues in this version of the Guidance Document
As amendment of the FAR and ALC regulations is not yet finalised, certain elements of this Guidance Document are as of yet undefined. This especially includes issues related to the ALC regulation which still needs to be amended to implement the revisions in Article 10a of the EU ETS Directive. This can also relate to other legislation or accompanying Guidance Documents that are still in the process of amendment.

[4] Commission Implementing Regulation (EU) 2019/1842 of 31 October 2019 laying down rules for the application of Directive 2003/87/EC of the European Parliament and of the Council as regards further arrangements for the adjustments to free allocation of emission allowances due to activity level changes.

2 Legal Background

To provide further incentives to reduce GHG emissions, Article 10a(1) of the EU ETS Directive imposes conditions that eligible installations have to meet before the final amount of allowances can be issued to those installations. The following conditions apply:

1. The free allocation of emission allowances to installations that are subject to an energy audit or certified energy management system according to Article 8 of the Energy Efficiency Directive (EED)[5] are reduced by 20% if the operators of these installations cannot demonstrate to the satisfaction of the competent authority that energy efficiency recommendations from those energy audits or certified energy management systems have been implemented.
2. The free allocation to installations that have product benchmarks will be reduced by 20% if the emissions of the specific sub-installation are higher than 80th percentile of their benchmark curve. This does not apply if those installations have a compliant Climate Neutrality plan in place.[6]

The 20% reduction to the free allocation applies only if one or both of the conditionality points have not been met (Article 22c of the FAR).

This guidance document will focus on the conditionality aspect under point 1. For further guidance on the condition under point 2 reference is made to Guidance Document 11 on Climate Neutrality Plans as a condition to free allocation.

2.1 Directive 2003/87/EU

The legal basis for the first conditionality point can be found in Article 10a(1) subparagraph three of the EU ETS Directive (see Table 1).

The allocation of emission allowances to installations that are required to conduct an energy audit or implement a certified energy management system under Article 8 of the EED, will be reduced by 20% if those installations cannot demonstrate that they have implemented recommendations from those energy audits or certified management systems. There are however reasons for derogation from the conditionality rules. If the costs of investments for implementing the recommendations is too high or if the pay-back time for investments related to the recommendations is more than three years, a reduction will not be applied. This is also the case if the operator of the installation demonstrates that it has implemented alternative measures that lead to GHG emission reductions that are equivalent to reductions that would have been achieved with the energy efficiency recommendations concerned. These reasons for derogation to conditionality are further explained in section 4.

[5] Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, OJ L 315, 14.11.2012, p. 1–56, ELI: http://data.europa.eu/eli/dir/2012/27/oj

[6] This provision is not applicable where the relevant product benchmark sub-installation does not contribute to more than 20% of the sum of all sub-installations' preliminary annual numbers of emission allowances allocated free of charge in respect of the period from 2021 to 2025.

Table 1: Article 10a(1) subparagraph three of the EU ETS Directive

If an installation is covered by the ***obligation to conduct an energy audit*** *or to implement a* ***certified energy management system*** *under Article 8 of Directive 2012/27/EU of the European Parliament and of the Council (1) and if the recommendations of the audit report or of the certified energy management system are* ***not implemented****, unless the* ***pay-back time for the relevant investments exceeds three years*** *or unless the* ***costs of those investments are disproportionate****, then the amount of free allocation shall be reduced by 20 %. The amount of free allocation shall not be reduced if an operator demonstrates that it has implemented other measures which lead* ***to greenhouse gas emission reductions equivalent to those recommended*** *by the audit report or by the certified energy management system for the installation concerned.*

2.2 Commission Delegated Regulation (EU) 2019/331

To ensure that the rules on conditionality are implemented consistently and uniformly by Member States, Article 10a(1) subparagraph four requires the Commission to develop harmonised rules for implementation of the first conditionality aspect. These harmonised rules should further define timelines and provide more concrete criteria on when energy efficiency recommendations are considered to be implemented and when one of the exceptions to conditionality is applicable. Article 22a of the FAR includes those specific requirements and ensures effective implementation of the requirements in the Directive.

Article 22a of the FAR repeats the requirement in the Directive that the allocation of allowances has to be reduced by 20% if installations covered by Article 8 EED have not demonstrated to the satisfaction of the CA that all recommendations from the applicable energy audits or energy management systems have been implemented.
To provide legal certainty, recommendations are considered to be implemented if implementation of the recommendation has been completed and the verifier has confirmed the completion of implementation as part of verification of the baseline data reports. The operator of the installation is however allowed to recover the reduced free allocation during submission of annual activity level reports in subsequent years, if it provides verified evidence that implementation of the energy efficiency recommendations has been completed. The verifier would in that case confirm the completion of implementation as part of verification of the annual activity level report. More information on this aspect can be found in section 5 of this guidance document.

In some cases, a reduction to the allocation of allowances will not be applied. Firstly, this is the case when no recommendations for improvement were included in a relevant energy audit (i.e. 2019 – 2022 for the second allocation period of Phase 4), or when energy efficiency recommendations made are not relevant for the specific installation (see section 4.3). Secondly, specific reasons for derogation specified in Article 22a of the FAR are applicable.

The operator of the installation should therefore follow certain steps to identify which recommendations are relevant. Table 2 outlines the relevant requirements from the FAR.

Table 2: FAR Article 22a

Conditionality of free allocation on implementation of energy efficiency improvement measures

1. *The final annual amount of emission allowances allocated free of charge, determined pursuant to Article 16(8) of this Regulation to the installation referred to in Article 10a(1), third subparagraph, of Directive 2003/87/EC, shall be reduced by 20 % in accordance with Article 10a(1) of that Directive if the operator cannot demonstrate to the satisfaction of the competent authority that all recommendations under Article 8 of Directive 2012/27/EU* have been implemented.*

   By way of derogation from the first subparagraph, no such reduction shall apply if the operator can demonstrate to the satisfaction of the competent authority that any of the following conditions apply:

   a) *the **pay-back time** for the relevant investments of a recommendation exceeds three years;*
   b) *the **investment costs** for the implementation of a recommendation exceed either of the following thresholds:*
      i. *5 % of the installation's annual turnover or 25 % of the installation's profit, calculated on the basis of the corresponding annual averages over the three calendar years prior to the date on which the application for free allocation shall be submitted in accordance with Article 4;*
      ii. *50 % of the average annual economic equivalent of the amount reduced in accordance with the first subparagraph from the final annual amount of emission allowances allocated free of charge pursuant to Article 16(8) calculated based on the average price of allowances on the common auction platform in the relevant calendar year preceding the application referred to in Article 4(2);*
   c) ***other measures have been implemented** during or after the relevant baseline period which lead to greenhouse gas emission reductions within the installation **equivalent** to those recommended by the energy audit report or the certified energy management system under Article 8 of Directive (EU) 2012/27/EU;*
   d) *the recommendations would **not lead to energy savings within the system boundaries of the industrial process** carried out at the installation;*
   e) *the **installation-specific operating conditions**, including planned or unplanned periods of maintenance, based on which the pay-back period referred to under point (a) was determined, have not occurred yet;*
   f) *the recommendations of the audit report or of the certified energy management system were not issued during the **first four years of the relevant baseline period**.*

2. *The operator shall establish, implement, document and maintain a **procedure** for implementing recommendations and, where applicable, demonstrating the application of the conditions as referred to in paragraph 1.*

3. *The **verifier** shall check as part of the verification of the baseline data report referred to in Article 4(2) whether the recommendations referred to in paragraph 1, first subparagraph, are implemented and whether the conditions set out in paragraph 1, second subparagraph, are met, where applicable.*
   *Where relevant, the verifier shall check, as part of the verification of the annual activity level report in accordance with Article 7 of Implementing Regulation (EU) 2018/2067**, whether the recommendations referred to in paragraph 1, first subparagraph, are implemented and whether the conditions set out in paragraph 1, second subparagraph, are met, where applicable.*

4. *The competent authority shall only consider the recommendations referred to in paragraph 1, first subparagraph, as implemented where all of the following conditions are met:*
   a) the operator demonstrates the completion of the implementation of those recommendations;
   b) the verifier has confirmed the completion referred to in point (a) in accordance with paragraph 3.

3 Introduction to energy audits and energy management systems

Article 10a(1) subparagraph three of the EU ETS Directive refers to energy audits or certified energy managements systems covered by Article 8 Directive 2012/27[7] (EED). This Directive will be applicable until October 2025 and will then be repealed by the "revised EED" (Directive 2023/1791)[8]. For the allocation of emission allowances over the period 2026-2030, recommendations from the energy audit(s) or certified energy management systems that were issued in the years 2019-2022 are relevant.[9]

3.1 Energy audits or energy management systems

Article 8 and Annex VI of the EED require enterprises to carry out energy audits in an independent and cost-effective manner at least every four years from the date of the previous energy audit. Currently, small and medium-sized enterprises (SMEs) are not required to carry out energy audits, but they can do so on a voluntary basis. If SME's carry out such a voluntary energy audit or have an energy management system, they have no obligation to implement the recommendations from those audits or systems under Article 22a. Enterprises with an ISO or EN Standard certified energy management system (which is defined in Article 2(11) of the EED)[10] do not fall under this auditing obligation provided that the system includes an energy audit and evaluation of the energy efficiency of the enterprise and implementation of measures to increase energy efficiency. Annex VI provides requirements on energy audits that apply to energy audits and audits under the energy management systems. An "enterprise" is not necessarily the same as the "ETS installation": it can consist of multiple ETS installations (and non-ETS facilities), which means that the energy audit and the audit report will cover all of these ETS installations and facilities.

An energy audit is defined by Article 2(25) of the EED as a systematic procedure with the purpose of obtaining adequate knowledge of the existing energy consumption profile of a building or group of buildings, an industrial or commercial operation or installation or a private or public service, identifying and quantifying cost-effective energy savings opportunities, and reporting the findings. In other words, it is an inspection, survey and analysis of energy consumers and energy flows to identify energy saving opportunities in a building, transportation, process or system within the enterprise, to provide an overview of possible saving measures and expected effects. Those energy audits are carried out by

[7] Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955, OJ L 231, 20.9.2023, p. 1

[8] Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955 (recast), PE/15/2023/INIT, OJ L 231, 20.9.2023, p. 1–111, ELI: http://data.europa.eu/eli/dir/2023/1791/oj

[9] In the revised EED, the requirements on the application of energy audits or certified energy management systems have been included in Article 11, which will apply as from October 2025. Under the revised EED, enterprises with an average annual energy consumption of more than 10 TJ have to carry out energy audits every four years. Article 11 of EED will be relevant for the following allocation period, running from 2031 to 2035.

[10] 'Energy management system' means a set of interrelated or interacting elements of a plan which sets an energy efficiency objective and a strategy to achieve that objective.

qualified and/or accredited experts that are supervised by independent authorities. Energy audits are usually carried out by external energy auditors but the audits or evaluations under energy management systems can also be carried out by qualified in-house experts. Most countries have set-up a national registration scheme or multiple registration organisations for energy auditors governed by public authorities. These registration schemes contain public lists of energy auditors from which qualified auditors can be selected to conduct an energy audit. In principle energy auditors must have relevant education in the technical field, several years of professional experience in the field and in most cases, expertise required by specific standards such as DIN EN 16247-1/5, ISO 50002 (energy audits), and ISO 50003 (competencies for auditors certifying EnMS).

3.2 Recommendations from energy audits or energy management systems

To understand the requirements in Article 22a of the FAR, Table 3 provides more information on energy audits, the type of recommendations that can arise from an energy audit and how these can be implemented.

Table 3: Implementation of recommendations from energy audits or energy management systems

Recommendations from energy audits or energy management systems can cover a variety of issues: e.g., energy improvements in industry processes or energy performance of buildings and other facilities that are not linked to the industry process. The type of recommendations can vary as well: some being of a technical nature, others on how energy is managed by the organisation or how people's behaviour can influence energy use. Recommendations can be made on buildings, lightning, heating and boilers, ventilation and air conditioning, pumps, refrigeration and cooling, industry processes, waste treatment, compressed air, renewable energy and transportation. Examples of recommendations include improving quality control and overall equipment, modification of operational procedures, commitment to ongoing training and information dissemination to increase awareness among staff, deployment of behavioural change programmes such as energy awareness campaigns, reduction of avoidable waste, checking steam trap settings, steam leaks, compressor leaks, mend/ replacing non return valves in equipment such as compressors.
Recommendations included in the energy audit report contain, in principle: information on each recommendation, quantifiable energy savings (which could be converted into e.g., tonnes of CO_2) and pay-back time related to that recommendation. In several countries, companies have to draft an implementation programme, other plan or record which specifies how recommendations are to be implemented: allocating a specific target date, sufficient resources and specific individual responsible for its completion. The performance of implemented recommendations is monitored, recorded and incorporated as an input to the next energy audit. Most companies therefore should have an internal administration process on how recommendations are implemented and monitored.

For certified energy management systems, energy audits or evaluations are carried out as part of that energy management system. Similar recommendations can be made in such cases.

3.3 Self-declaration by operators

Within the framework of the EU ETS, to lessen the burden on verifiers and the CA, the operator should include a self-declaration in the baseline data report and accompanying documents, if necessary, on the following two aspects:

- Whether the installation has obligations under Article 8 of the EED, and national law implementing this Article.
- Where the above is applicable, whether one or more relevant recommendations have been issued during the first four years of the relevant baseline period (i.e., 2019-2022, see section 4.2), and have they been implemented.

Section 4 discusses how to check whether recommendations for improvement measures are relevant under the FAR, and under which circumstances measures can be considered as implemented.

It is not the responsibility of the EU ETS CA or the verifier to assess whether an audit was required under Article 8 EED and national law implementing this Article. This means that if no energy audit was carried out during the relevant period (2019-2022), no reduction of allowances shall apply. However, if data presented in the BDR[11] alerts the CA to the fact that the operator might be subject to auditing or certified energy management system obligations under Article 8 of the EED, it is best practice to contact the relevant EED authority in the MS and check with them if an audit should have been carried out. Any non-compliance with the EED or national law implementing the EED and penalty for not carrying out required audits would fall under the responsibility of the EED authority.

[11] Information on whether an installation was subject to an energy audit or certified energy management system under Article 8 of the EED and whether such audits were carried out is available from the BDR (see the operator's declaration listed in Figure 1).

4 Checking whether recommendations are relevant in the context of free allocation

To satisfy the requirements of FAR Article 22a, all measures recommended by energy efficiency audits have to be fully implemented by the time operators submit their applications for free allocation. This deadline is by 30 May 2024 for the second allocation period of Phase 4, i.e., for the free allocation from 2026 to 2030. Note that the submission may be one month earlier or later, where Member States have set an alternative time limit for such submission, in line with Article 4(1) of the FAR. Furthermore, as the verifier needs to check whether implementation of recommendations has been completed, the measures must have been implemented by the time the verifier has to issue to the operator the verification report related to the verified baseline data report.

It is the operator's responsibility to provide evidence that implementation of the recommendations has been completed. Such evidence includes, for example, documentation of the plans carried out, concrete measures taken to implement recommendations[12], evidence that implementation of these recommendation is completed, and on-site evidence (e.g., allowing the verifier to inspect to ensure that new equipment has been established). In order to collect that evidence in a structured manner, the operator has to establish and implement a procedure for implementing the energy efficiency recommendations (see FAR article 22a (2) and section 6). The operator makes the procedure and all evidence available to the verifier before and during verification so that the verifier can check and confirm whether implementation of the recommendations has been completed.

If not all recommendations have been completely implemented before verification starts, the operator still has time to deal with this provided that the operator:

- Informs the verifier at the start of verification that a recommendation(s) is still in the process of being completed according to the operator's implementation plans and shares those plans, the expected completion deadline and other relevant evidence[13] available at that time;
- Shares with the verifier timely evidence of completion before the verifier has to issue the verification report to the operator. The verifier must have sufficient time to be able to check and confirm whether implementation of recommendation(s) is actually completed, and to be able to complete an independent technical review (see section 7).

At the end of verification of the baseline data report, the verifier has to confirm in the verification report whether implementation of all the recommendations has been completed

[12] The verifier will look at all evidence of all concrete measures that were taken to implement the recommendations from management decisions evidence of allocation of funds, to documentation of commissioning equipment and procurement of personnel or contractors, and certificates of completion.

[13] For example, management decisions and evidence of allocation of funds.

or not, or whether any of the reasons for derogation apply (see section 7). The verifier also needs to report any observations made during the confirmation check.

By 30 May (or an alternative deadline set by the Member State), the operator submits the baseline data report and the associated verification report to the CA when applying for free allocation of allowances. The CA is responsible for assessing whether all conditions for free allocation of allowances have been met, and whether the allocation has to be reduced by 20% or not. For that purpose, the CA will review the information in the verification report, the evidence provided by the operator in the baseline data report, and any additional documents provided by the operator in the application for free allocation of allowances[14]. If needed, the CA can request further information, or even inspect the implementation of energy efficiency measures themselves. Figure 1 shows how the aforementioned steps are interlinked.

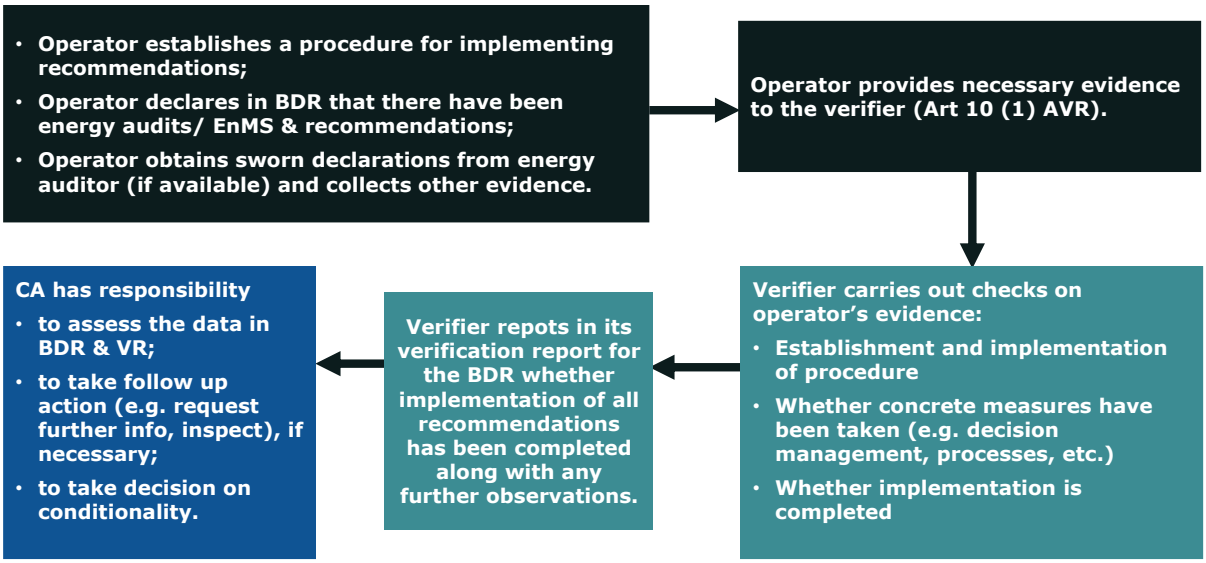

Figure 1: Relation between operator, CA and verifier in checking EE recommendations

If not all measures are implemented, the 20% deduction from the installation's free allocation will apply to the next allocation period, which would be for example 2026-2030. However, if by the time the first ALC report of the new allocation period is submitted (i.e., 31 March 2026 for the second allocation period of Phase 4) all relevant recommendations have been implemented, the operator is allowed to recover allowances according to the ALC regulation (see section 5).

[14] Such additional documents may include the procedure required by Article 22a(2), or documents proving that that reasons for derogation apply (e.g., proving that the investment costs are unreasonable).

4.1 Step-wise approach

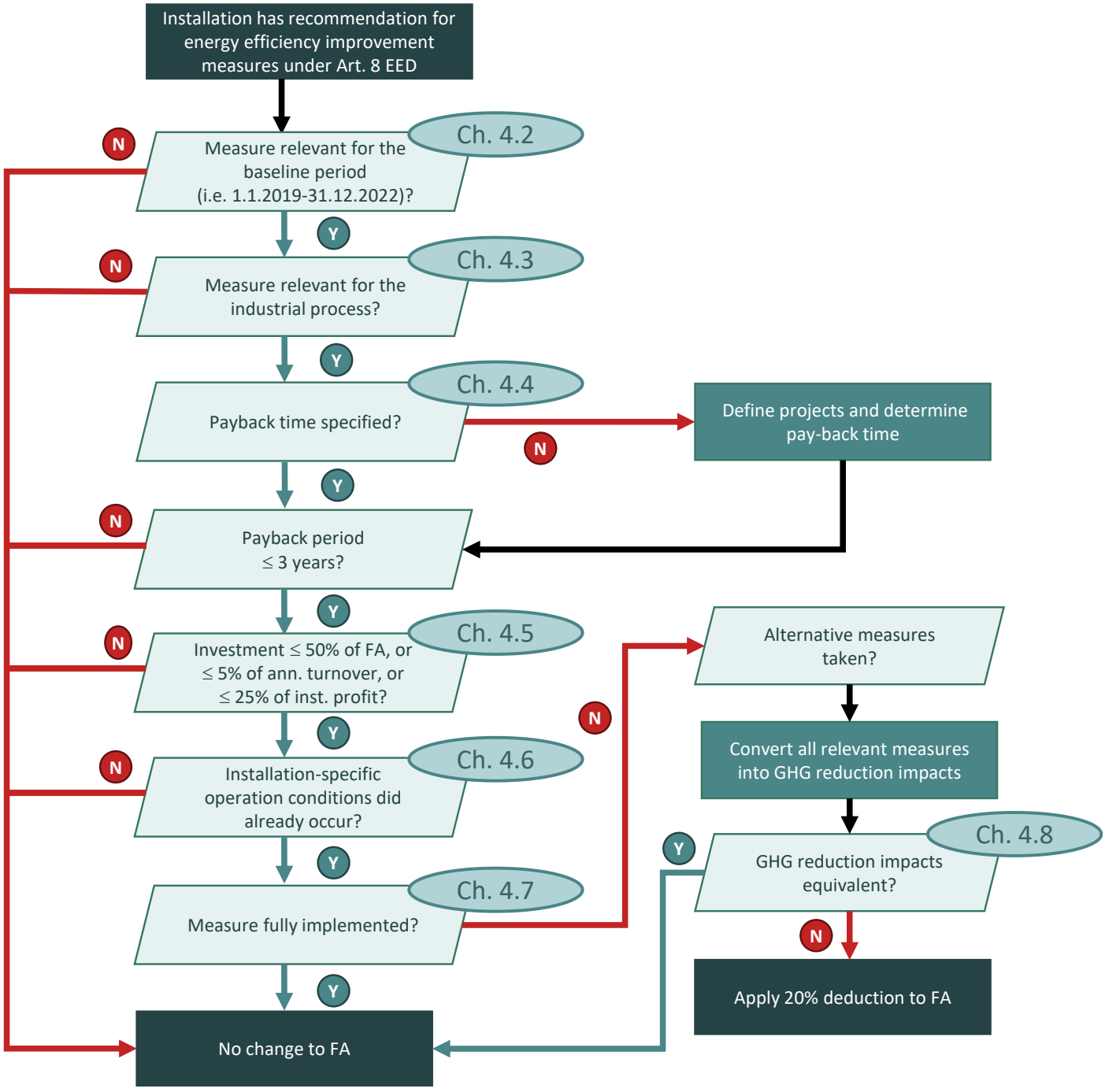

Figure 2: Decision tree for checking energy efficiency measures.
'Bubbles' refer to sections in the current guidance document, FA=Free Allocation

The decision tree above illustrates the steps which have to be taken to demonstrate whether the recommendations for energy efficiency are relevant and have been implemented, leading to the decision as to whether the 20% deduction from the free allocation is to be applied or not.

Each step refers to the section in the current chapter in which the relevant step is described. Each of these steps has to be carried out for all relevant recommendations, as is depicted in Figure 3. However, if the assessment for any single recommendation reaches the conclusion that the 20% deduction should apply, the assessment can be stopped, as the deduction will automatically apply to the whole installation.

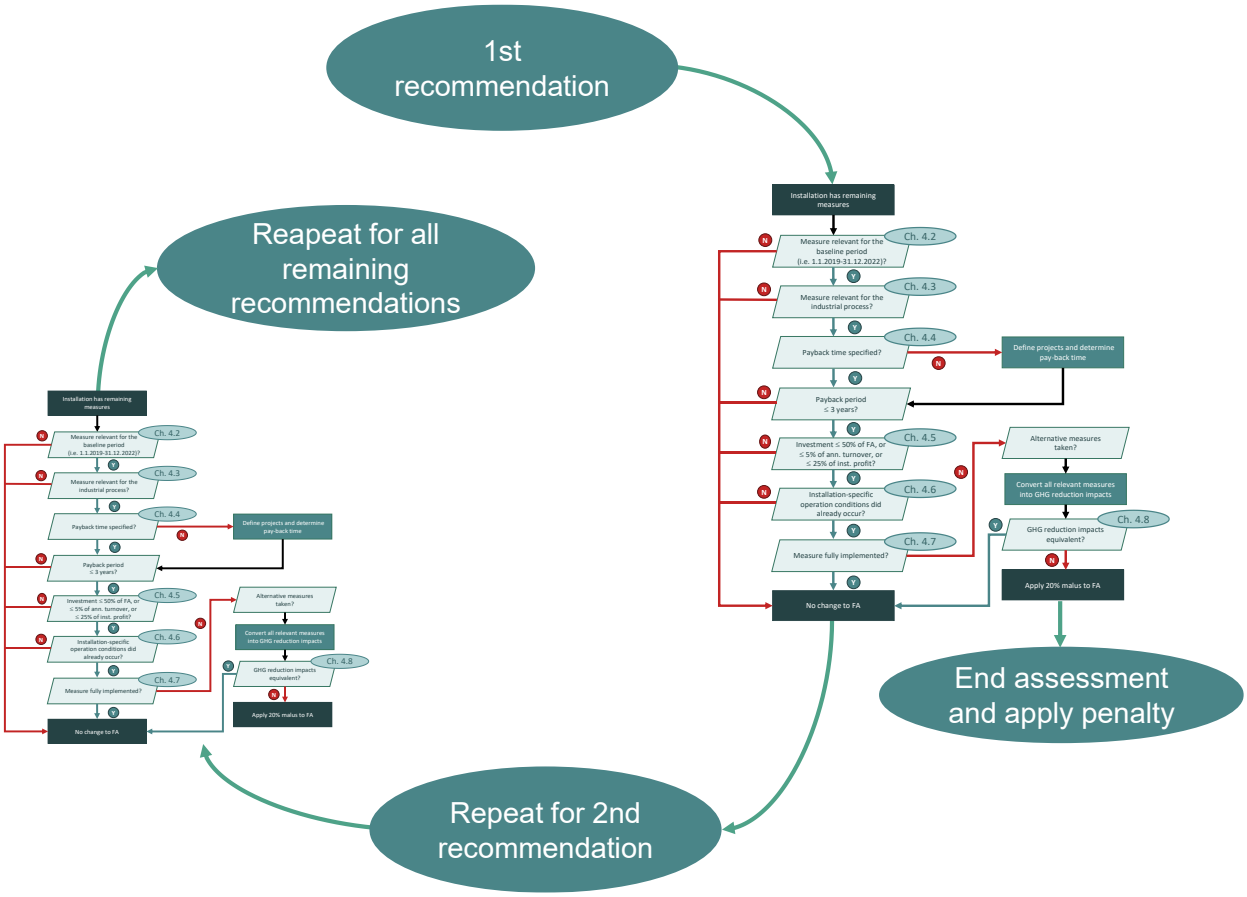

Figure 3: Assessment for each recommendation

4.2 Relevant baseline period

FAR Article 22a(1)(f): "the recommendations of the audit report or of the certified energy management system were not issued during the first four years of the relevant baseline period."

In order to provide operators with sufficient time to implement recommendations, Article 22a(f) specifies that only recommendations issued during the first 4 years of the baseline period i.e., 1 January 2019 to 31 December 2022, should be taken into consideration for the energy efficiency conditionality (see section 3.3 on self-declaration). Any recommendations first issued in an energy audit before these relevant years (e.g., in 2017), but repeated in an energy audit report issued during 2019-2022, because the recommendation was not yet

implemented, do fall within the relevant time period and so are relevant for further assessment of their implementation.
For the relevant time period, all relevant recommendations have to be implemented.
For example, if there is an audit with recommendations issued in 2019 and one in 2022 both audits will be relevant. In cases where the last audit with recommendations was in 2018 and no audit was carried out thereafter, there will be no recommendations in the relevant baseline period and the deduction will not apply.
Figure 4 provides a graphical representation of the timeline and the different deadlines for the implementation of energy efficiency measures.

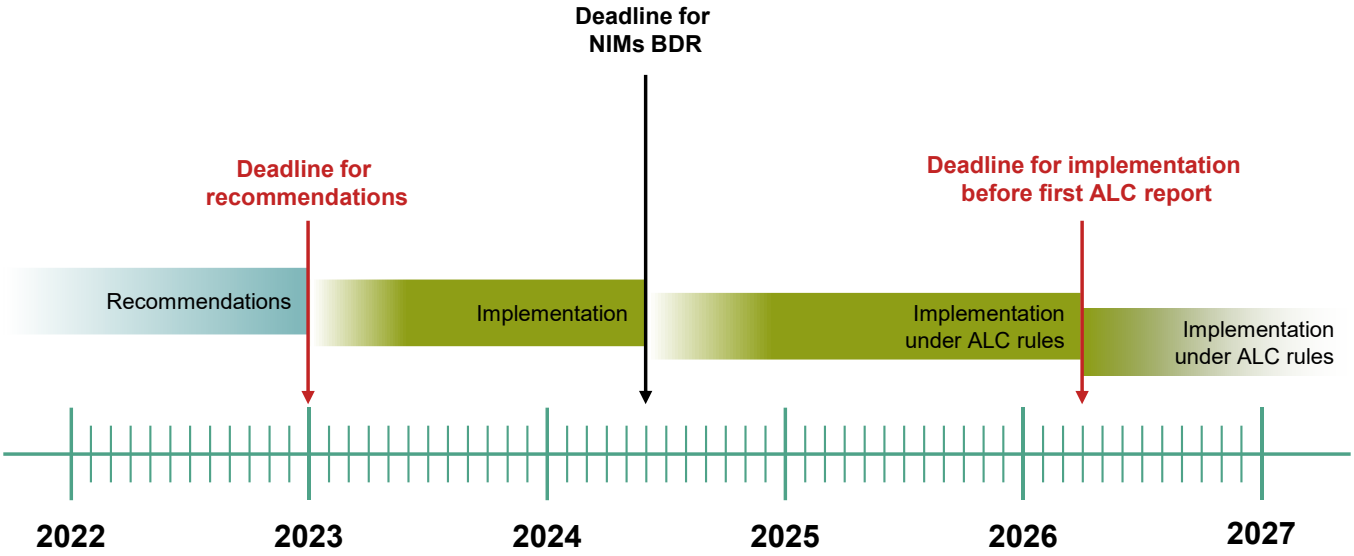

Figure 4: Timeline for the implementation of energy efficiency measures

4.3 Energy savings within the industrial process

FAR Article 22a(1)(d): "the recommendations would not lead to energy savings within the system boundaries of the industrial process carried out at the installation".

Energy audits or the certified energy management system are typically carried out at company level and the audit report(s) may therefore contain recommendations that either do not relate to the EU ETS installation regulated activities (e.g., to incentivise employees to use more public transport, re-new the company car fleet), or are of a cross-cutting and not of an installation-specific nature. The latter could include recommendations to use more energy efficient appliances or switch to LED lighting in (office) buildings, as well as insulation measures for buildings or fuel switching for office heating systems. Often those measures might not be directly linked to the industrial process.

Article 22a(1)(d) stipulates that only those recommendations related to the industrial process should be taken into account in the context of the conditionality of free allocation. This

requires a translation of each recommendation at the company-level to measures at the industrial process level of the installation.

Thus, first the operator should check if recommendations are relevant at the installation-level. For example, a measure could be to switch to more efficient boilers but the relevant installation does not produce measurable heat. In such a case, this recommendation can be disregarded for the specific installation.

The operator then has to check whether a measure that is relevant to the installation, also concerns the installation's industrial process. Insulation of onsite buildings might be relevant for all installations that are part of the company but those buildings do not pertain to the industrial process. However, all recommendations pertaining to the industrial process have to be considered, independent of which energy source is used (e.g. electricity, hot water, steam). For installations where no physical product (e.g. bricks, steel, cement) is produced (e.g. district heating) the production and/or use of heat/electricity constitutes the "industrial process". For example, for an installation producing only district heating, the system boundary of the industrial process would include the heat produced and transported to the installation boundary. Recommendations like e.g. more efficient boilers, better insulation of pipes transporting heat within the installation for the purpose of district heating, are thus covered by the industrial process. Outside the boundary of the industrial process would be the use of heat for e.g. heating office buildings within the installation.
Examples of which types of recommendations are or are not relevant for the industrial process can be found in Table 4.

Table 4: Examples of measures with and without relevance to the industrial process

Examples for measures….	
…within the system boundaries of the industrial process carried out at the installation	**…<u>not</u> within the system boundaries of the industrial process carried out at the installation**
• Exchange of a gas boiler for a more efficient one, which produces heat used in the production process, e.g., heating feedstock • Switch to a more efficient kiln or furnace • Switch to a more efficient distillation column • Better insulation of pipes used for transporting measurable heat around the installation, where the heat is used for production • Using a more efficient electric stirrer • Installing heat recovery from waste heat streams, e.g., burning of waste gases • Process optimisation leading to less flaring • Process optimisation leading to an optimised burning curve and thus less fuel input needed • Process optimisation leading to less product rejection	• Exchange of a gas boiler for a more efficient one, which produces heat used only for heating offices • Switch to more energy efficient fridges for the installation's office canteen • Switch to LED lighting • Better insulation of pipes for importing heat from outside the installation's boundaries • Organising shuttle buses to bring employees to and from work • Training for employees regarding energy conscious behaviours • Optimising administrative processes so that less printed versions of documents are needed • Implementing procedures to encourage employees to take the train when travelling for work

Note: Some measures may relate to the industrial process, but may not lead to GHG savings within the installations (e.g., relating only to imported electricity consumption savings), see also section 4.8.

4.4 Pay-back time

FAR Article 22a(1)(a) "the pay-back time for the relevant investments of a recommendation exceeds three years"

Usually the pay-back time and the required investment for each measure should be specified in the EED audit report. However, for cases where it is not mentioned in the report, operators need to determine the likely pay-back time and investment costs themselves. The FAR does not specify how to calculate this payback period and which assumptions (energy prices, staff costs, etc.) should apply. Where national law contains requirements on the calculation of the pay-back time, these requirements should be applied. Otherwise, operators can use their internal standards and guidelines for calculating pay-back time (similar to demonstrating 'unreasonable costs'), typically these might be part of their financial accounting rules (e.g., for other investments).

One way to prove that the pay-back time exceeds three years is to use the following equation:

$$\sum_{Year=1}^{3} Investment\ \ costs > \sum_{Year=1}^{3} Cost\ savings\ and\ added\ revenue$$

The cost savings in this formula include energy savings, but also other costs saved, such as staff or operational savings, for example cost saved from reduced material consumption. If more product is produced due to the energy efficiency measure, the added revenue should be considered as well.
Where the pay-back time for a measure exceeds 3 years, this could be confirmed, e.g., by a sworn declaration signed by senior management or the energy auditor. Such a declaration should be checked by the verifier and submitted to the CA as part of the application for free allocation.

4.5 Unreasonable Investment Costs/Eligibility Criteria

FAR Article 22a(1)(b): "the investment costs for the implementation of a recommendation exceed either of the following thresholds:

i. 5 % of the installation's annual turnover or 25 % of the installation's profit, calculated on the basis of the corresponding annual averages over the three calendar years prior to the date on which the application for free allocation shall be submitted in accordance with Article 4;

ii. 50 % of the average annual economic equivalent of the amount reduced in accordance with the first subparagraph from the final annual amount of emission allowances allocated free of charge pursuant to Article 16(8) calculated based on the average price of allowances on the common auction platform in the relevant calendar year preceding the application referred to in Article 4(2); "

Point i) turnover and profit: Profit and turnover is often defined at company (or group) level and may therefore not immediately correspond to the system boundaries of the installation. In such a case, the operator has to demonstrate that the installation's specific turnover or profit can be calculated, using for example documentation based on internal accounting standards and guidelines. Where this is feasible, the operator should compare the investment costs for a measure with 5% of the annual turnover of the installation or 25% of the installation's average annual profit, whichever is the lowest of the two values. The basis for the calculation (i.e., demonstrating compliance with internal standards and guidelines) and the results shall be made available to the verifier. Where this is not feasible, point (i) is not applicable and only point (ii) can be used for the calculation of unreasonable investment costs.

Point ii) economic equivalent: If the allocation deduction is applied, 20% of the installation's final annual allocation is at risk. Half of the allocation at risk would thus equal 10% of the installation's final annual allocation. The exact allocation will not however be available at the time of verification and submission of the baseline data reports. It will only be available

thereafter, when the BM values are able to be updated and the final allocation including the calculation of the cross-sectoral correction factor (CSCF) is determined. Therefore, as a reasonable proxy, operators may base the calculation of the average annual allocation (2026-2030) on historic activity levels and other relevant data as verified for the baseline data report, taking into account extrapolated BM improvement rates and a CSCF of 1.
In order to convert the allocation into a monetary value, the annual average price of an EU ETS allowance has to be used, for example, the average of 2023 prices would apply for the second allocation period of Phase 4. This value will be published annually by the Commission. For other currencies than Euros the annual average exchange rate shall be applied, for the same year that was used to determine the average price of an EU ETS allowance.

Example for calculating the economic equivalent
An installation producing glass has one product BM sub-installation (bottles and jars of colourless glass) and a district heating sub-installation. The HAL for the years 2019-2023 of the product BM sub-installation is 115 000 t of glass. The HAL of the district heating sub-installation is 30 TJ.
The preliminary annual amount of allocation for the product BM should be calculated as follows (see also GD2 section 4.1 for more detail):

$$F_{p,k} = BM_p \times HAL_p \times CLEF_{p,k} \times CBAM_{p,k}$$

where:

$F_{p,k}$ = Annual preliminary allocation for product p in year k (expressed in EUAs/yr);
BM_p = Product benchmark value for product p (expressed in EUAs / unit of product);
HAL_p = Historical activity level of product p
$CLEF_{p,k}$ = Carbon Leakage Exposure Factor for product p in year k.
$CBAM_{p,k}$ = Carbon Border Adjustment Mechanism Factor for product p in year k, if relevant.

The final allocation is calculated by multiplying the preliminary allocation by the CSCF. The HALs will be calculated in the baseline data report (BDR) and used for the calculation above. The BM values will however not be known at the time of checking for relevant energy efficiency measures, as they can only be calculated once the data collection is complete. A conservative approach could be to calculate the BM with the minimum update rate, as at least this rate will apply in any case and the threshold will not be underestimated, leading to a conservative approach. Alternatively, the update rate established during the last data collection can be used as a best estimate.[15]
The BM value for BM16 - Bottles and jars of colourless glass is 0.382 t CO_{2e}/t in the FAR Annex I. The minimum update rate of the BMs for 2026 - 2030 is 0.3% per year, according to the ETS Directive 10a(2)(d). Applying the update rate over 20 years (from 2008 – 2028) will yield an indicative BM value that can be used for this calculation 0.382 x (1 – 20 x 0.3%) = 0.359.

[15] https://climate.ec.europa.eu/system/files/2021-10/policy_ets_allowances_bm_curve_factsheets_en.pdf However please be aware that no update rate under 0.3% can be used.

Thus, the annual preliminary allocation would be:

$$F_{p,k} = 0.359 \times 115\,000 \times 1 \times 1 = 41\,285.$$

For the district heating the same calculation needs to be done (see GD2 section 4.3 for more detail, assuming the max. BM improvement rate of 2.5% p.a.):

$$F_{DH,\,k} = 31.2 \times 30 \times 0.3^{16} \times 1 = 281$$

Assuming a CSCF of 1, the installation would thus receive 41 566 allowances for free annually. The average price of one EU ETS allowance for 2023 will be published by the Commission[17]. Assuming a value of 83.6€/t CO_2, the economic equivalent of the annual free allocation equals 3 474 918 €. Half of the 20% at risk will therefore equal 347 492 € (= 10% * 3 474 918). Thus, investment costs for any recommended measures exceeding 347 492 € can be disregarded from the assessment.

4.6 Installation-specific operating conditions

FAR Article 22a(1)(e): "the installation-specific operating conditions, including planned or unplanned periods of maintenance, based on which the pay-back period referred to under point (a) was determined, have not occurred yet"

The operator has to provide sufficient evidence to the verifier that a recommendation requires specific conditions for implementation. In addition, the operator has to prove that these conditions have not occurred since the recommendation was made. For this, the operator should use installation specific information, e.g., plans for past and future maintenance work. Where the operator can demonstrate that these specific operating conditions did not occur yet, the implementation of the specific measure does not have to be further assessed. The operator should also provide an indication of when the installation specific conditions will be met and when implementation can be completed. This gives the verifier and the CA a clear picture of when implementation of such a recommendation can reasonably be done.

To make sure that the measure will be implemented in the future, the operator can provide a confirmation, e.g., sign a sworn declaration that the measure will be implemented once the defined operating conditions occur. The operator should present any available relevant evidence to the verifier to prove that implementation of the measure will be done once the operating conditions occur, e.g., that they form part of the plans for an installation shut down, planned maintenance programmes, implementation plans or contracts with companies commissioned to do the implementation, and potentially documents such as invoices from equipment pre-acquired as part of planning.

[16] Note that the CLEF for district heating is 0.3.

[17] Add reference once known

4.7 Remaining measures fully implemented?

If, after the steps laid out in sections 4.2 to 4.6, any recommendations for energy improvement measures remain applicable to the installation, the operator has to demonstrate that either each remaining measure has been fully implemented, or that other measures have been carried out that lead to equivalent GHG reductions. The latter is discussed in section 4.8.

In order to demonstrate that measures have been fully implemented, the procedure described in section 6 will be relevant. Furthermore, the verification steps described in section 7 can also help the operator design the procedures and present the results in a manner that can be easily checked by the verifier.

4.8 Equivalency of greenhouse gas reductions

FAR Article 22a(1)(c): "other measures have been implemented during or after the relevant baseline period which lead to greenhouse gas emission reductions within the installation equivalent to those recommended by the energy audit report or the certified energy management system under Article 8 of Directive (EU) 2012/27/EU"

To incentivise other measures to be taken by the operator to reduce greenhouse gas emissions, the FAR allows implementation of other measures provided that both of the following conditions apply:

- The measures were implemented during or after the relevant baseline period (e.g., in or after 2019 for the second allocation period of Phase 4) and
- The measures lead to an equivalent reduction of greenhouse gas emissions.

Where alternative measures were implemented, the operator has to prove that both conditions apply.

In order to determine the equivalence of such greenhouse gas reductions, the system boundaries first need to be defined. The FAR states that emission reductions have to be "within the installation". Thus, only the direct emissions of the installation itself should be considered and, to be consistent with Article 22a(1)(d) (see section 4.3), only greenhouse gas savings pertaining to the industrial process itself should be taken into account. So, for example, where an EED recommendation relates only to electricity which is exclusively imported (no own electricity production), the GHG savings within the installation are zero. However, if the electricity is completely or partly produced onsite, the associated GHG savings have to be taken into consideration when comparing against GHG savings from any other measures. Therefore, to the extent electricity is produced onsite, the relevant fraction of own production has to be considered, when calculating the GHG savings of a recommendation.
In many cases, it will be helpful to assess emission reductions in the context of sub-installations. The advantage of this approach is that data related to sub-installations is well known and the specific emission factor (e.g., t CO_2/t product) can be compared to the

emission factor predicted to be reached for an alternative measure. Where possible, the operator shall ensure that the data used for calculating emissions is consistent with the monitoring plan (MP) and the monitoring methodology plan (MMP) for the installation. For example, an alternative measure might reduce the consumption of a specific fuel. To calculate the corresponding reduction of emissions, calculation factors (NCV, EF,…) will be needed. Those factors have to be taken from the MP, where applicable.
However, care has to be taken that the greenhouse gas emissions of the whole installation have to be reduced. So, if measures reduce emissions in one sub-installation but raise them in another, both have to be evaluated jointly and the overall impact has to be assessed, ensuring that the installation's total emissions have been reduced.

Example
An installation producing clay blocks recently installed a new tunnel kiln, which allows them to keep more heat within the kiln and thus reduce the amount of fuel used for firing. Furthermore, different kiln cars are used that need less energy for pushing them. The specific energy consumption (SEC) per tonne of product has thus decreased from 1.1 GJ/t to 0.8 GJ/t for the fuel benchmark sub-installation. However, since less heat leaves the kiln, more fuel has to be used during the drying of the blocks. The heat from the kiln previously used for this step is now no longer available and the specific emission factor for this step has increased from 0.6 GJ/t to 0.7 GJ/t. Since the same amount of product is passed though the kiln and the drier (100 000 t of product) and both sub-installations only use natural gas (EF= 56.1 t CO_2/TJ) as a fuel, the greenhouse gas savings can easily be calculated: see

Table 5, which shows clearly that overall emissions at installation level have decreased. The electricity saving due to the change of kiln cars is not considered, as it has no influence on the direct emissions of the installation, since the installation imports all electricity used.
The saving of 1 112 t CO_2 can then be compared with the saving from other measures to see if an equivalent reduction is reached.

Table 5: calculation of emission reductions

	SEC before	SEC after	Emissions before	Emissions after	Emissions reduction
	[GJ/t]	[GJ/t]	[t CO_2]	[t CO_2]	[t CO_2]
firing	1.1	0.8	6 171	4 488	1 683
drying	0.6	0.7	3 366	3 927	-561
total at installation level					1 122

Table 6: Other examples for alternative measures that could/could not be considered

Other examples of alternative measures that…	
…could be considered	**…could not be considered**
• Changing appliances that save heat produced at the installation • Changing appliances that save electricity, if the electricity is produced within the installation from fossil sources (e.g., CHP) • Using different inputs which cause less emissions (e.g., fuel, process materials,…) • Using renewable biomass • Optimising processes so that the same production causes less emissions (e.g., less breakage)	• Changing appliances that save imported heat, as this has no impact on the installation's direct emissions • Changing appliances that save electricity, if the electricity is solely imported • Insulating buildings as it is not linked to the industrial process

5 Recovery of allocation

FAR 21: "*In order to safeguard the incentive given by the introduction of the conditionality, an installation should be granted the possibility to recover the reduced free allocation after having implemented the recommended measures as part of the annual activity level report and after the implementation of the recommended measures has been verified. An annual cycle for reviewing the conditionality of non-compliant installations that follows the reporting of the annual activity levels should be established. Operators of non-compliant installations facing the 20 % reduction of free allocation should provide verified evidence to the competent authority on the implementation of all recommended measures to ensure recovery of free allocation reduced due to conditionality.*"

As indicated in section 4, all recommendations have to be implemented by the time the verified baseline data report is submitted (e.g. 30 May 2024) for the deduction to be avoided. However, if by the time the first verified ALC report of the new allocation period is submitted (i.e., 31 March 2026 for the second allocation period of Phase 4) all recommendations that were outstanding by the time the verified BDR was submitted, have been fully implemented, the operator is allowed to recover the reduced free allocation. If this is the case, in 2026 they will receive their full allocation, without the 20% reduction (see Figure 4).
Otherwise, the reduction applies. However, the operator has the chance to prove each year as part of the annual activity level report that all recommended measures are fully implemented and regain their full allocation for the rest of the allocation period.

There is however one key prerequisite. The operator has to demonstrate to the CA that the implementation of the recommendation is completed, and the verifier has confirmed that fact in the verification report associated with that ALC report. Similar checks will be carried out by the verifier as described in section 7. As described in section 4, it is the CA's responsibility to assess whether such a recovery of the allowances is appropriate once they have reviewed the operator's evidence, the verified annual activity level report, and the corresponding verification report. This recovery process will be regulated in the Regulation on adjustment of allocation data.

6 Procedure for implementing recommendations

FAR Article 22a(2): "The operator shall establish, implement, document and maintain a procedure for implementing recommendations and, where applicable, demonstrating the application of the conditions as referred to in paragraph 1."

The reference to procedures is a well-established process under the EU ETS, both for the emissions monitoring plan and the monitoring methodology plan for free allocation. It is used where any monitoring activities (such as the status of implementation of recommended energy improvement measures) which are not crucial in every detail, and which by their nature tend to be frequently amended as found necessary, may be put into 'written procedures'. The procedure should be referred to in the MMP, its implementation checked by the verifier (see section 7) and, upon request, be made available to the CA.

For the purpose of keeping track of the status of recommended measures and collecting evidence of implementation of recommendations, this procedure should cover at least the following aspects:

- Who is responsible for individual steps in keeping track of any recommendations arising from EED audit reports or a certified energy management system;
- Which steps are taken to keep track of the implementation process for each recommended measure. This would include conversion of any 'action points', or other forms of follow-up stated in audit reports or from certified energy management systems into concrete 'recommendations for energy efficiency measures', where applicable;
- How conversion is done from company-level data and information (recommendations for measures, turnover, profit, etc.) into installation-level or industrial process level data and information, respectively where relevant;
- Assumptions and calculation steps for all relevant parameters (see section 4 elements) such as pay-back times, proportionality, equivalent measures, etc.
- How the data quality is assured (e.g., regular meetings between the relevant team(s) implementing recommendations and the EU ETS team, training, 4-eyes principle);
- Where data and information on the status of each recommended measure is stored.

7 Verification aspects

Article 22a of the FAR requires the verifier to check and confirm implementation of energy efficiency recommendations as part of verification of baseline data reports and, if applicable, as part of verification of annual activity level reports.

The verifier's checks on energy efficiency recommendations will focus on assessing whether implementation of recommendations is completed. Thus, along with the operator's evidence of implementation, the verifier will rely on information associated with the energy audit report or certified energy management system outputs, and will not redo audits that were carried out by the energy auditor[18]. In order to confirm implementation of energy efficiency recommendations, the verifier will have to carry out certain checks, including:

- Checks to ensure that it can rely on the energy audit information and operator's evidence as would be the case when checking any audit evidence in order to verify:
  - Whether the energy auditor was qualified and certified to conduct audits in the relevant Member State.[19] In countries where register(s) (or professional bodies) are used to list eligible and qualified auditors, this would be a simple crosscheck with the register as to whether the energy auditor is on the list. The government or institution in charge of monitoring competence of energy auditors will have already checked the qualifications and competence of an individual energy auditor against specified standards. Such registers are public and accessible to EU ETS verifiers. If such registers are not used, the verifier would need to check applicable rules on approval/ certification of auditors in individual Member States, and check with the regulator or institution in charge;
  - Whether recommendations are at the level of an enterprise, organisation or individual installation. The ETS verifier will focus on those recommendations that are relevant to the industry process of the individual installation. If recommendations are made at the enterprise or organisation level, the verifier will check the operator's evidence on how recommendations are allocated or apportioned to an individual ETS installation to ensure it is reasonable.
- Checks on operator's evidence on implementation of energy efficiency recommendations including:
  - Whether the operator has established, implemented, and documented a procedure for implementing energy efficiency recommendations. Checking procedures is part of the normal verification process,
  - Whether the operator has taken concrete measures to implement recommendations, e.g.:
    - Whether the operator has in place a process for decision making, allocation of funds, procurement and project management that is established to implement recommendations, and is being applied.

[18] An energy auditor can be an external auditor certified in carrying out such audits or, in the case of energy management systems, an internal auditor qualified and trained in carrying out internal energy audits.

[19] Where there is an internal auditor, the ETS verifier would check whether there is evidence that the internal auditor is competent (e.g., whether the auditor is trained in carrying out internal energy audits).

- Whether energy efficiency projects have been approved and implemented including going through the process of capital expenditure allocation, the commissioning of equipment or other measures needed to implement the recommendation, procurement or hiring of personnel or contractors to implement recommendations.

- Whether recommendations have been marked as completed in procedures or implementation plans and/or whether there is a certificate of completion, commissioning certificate, or equivalent document.

The abovementioned checks show that the EU ETS verifier does not check whether recommendations have been implemented correctly. Instead, an EU ETS verifier would be focusing on checking evidence that implementation of the recommendations is completed. In principle, verifiers would deal with this in a similar manner as when confronted with other types of evidence obtained through other parts of their verification: e.g., checking biomass certificates and proof of sustainability, checking analysis results from accredited laboratories, and checking internal control systems. The verifier would perform checks on the evidence, to ensure that it is plausible and can be relied upon in reaching its conclusions.

With respect to checking the relevance of measures (i.e., all the steps discussed in section 4) the verifier checks whether one of the conditions is applicable based on the operator's evidence. The CA uses the information in the verification report and, if relevant, other evidence provided by the operator,[20] to assess whether any exceptions are applicable. Table 7 shows what checks a verifier has to carry out for this purpose.

Table 7: Checks to be carried out by the verifier

The verifier has to carry out the following checks:

Checks on whether there are recommendations from applicable energy audits or certified energy management system (section 4.2): the verifier checks the self-declaration in the operator's baseline data report and cross checks with other evidence from the operator (e.g., the procedure for implementing recommendations, energy audit reports and relevant reports from the energy management systems). If there are no recommendations or relevant audits, the verifier does not have to undertake further action. The verifier should check this condition during the strategic analysis.

Checks on whether recommendations lead to energy savings within the system boundaries of the industrial process carried out at the installation (section 4.3). The verifier checks whether the specific energy efficiency recommendation relates to the system boundaries of the installation and the industry process itself. For that purpose, the verifier cross checks the operator's evidence with information in the permit, the monitoring plan and the monitoring methodology plan. Where needed, the verifier performs checks on data before the implementation of a measure and best available data related to the status of

[20] The CA is free to request additional information if this is necessary.

implementation during the verification to see if an energy saving would be achieved by implementing the measure (e.g., a baseline of operational energy consumption before the project was implemented and matching data from after implementation). In that case the verifier also looks at any 'normalisation' required to ensure that the comparison is 'like for like'[21]. The operator would have to provide the necessary evidence which the verifier then checks. In most cases the focus of the verifier's checks will be on whether the recommendations concern the system boundaries and industry process of the installation.

Checks on pay-back time (section 4.4): in most cases pay-back time will be specified in the energy audit report or information output from the energy management system. However, in some cases the pay-back time may not be specified in the energy audit report or certified energy management system information. The verifier would in that case check whether the operator has provided the input used for determining the pay-back period, the validity of the information used to determine the pay-back time and the correct application of the method to determine pay-back time. If an external energy auditor is involved in determining the pay-back period, the operator will have to obtain all relevant information from that external energy auditor (e.g., the actual data for checking or a sworn declaration from the independent energy auditor as to the payback period calculated).

Checks on the proportionality of investments costs (section 4.5): based on the operator's evidence, the verifier checks whether the thresholds in Article 22a(1) (b) FAR are exceeded as well as the validity of the information used to calculate the investment costs. The verifier would need to look at the basis for calculation of investment costs to check if input information and assumptions made were reasonable and, where relevant, to compare it to statutory accounts or other formal accounting records[22];

Checks on whether the installation specific operating conditions apply (section 4.6), including planned or unplanned periods of maintenance, upon which the pay-back period was determined, have occurred yet, or not.[23] The verifier would have to obtain evidence from the operator on the operating conditions upon which the pay-back period was determined as well as the planning of maintenance and shutdowns etc. This would allow the verifier to check the operator's statement that these conditions had not yet occurred. In addition, the verifier checks operator's evidence on when the installation's specific conditions are expected to be met and the recommendations can be implemented (e.g., by checking whether implementation of measures form part of plans for an installation shut down, planned maintenance programmes, implementation plans or contract).

[21] E.g., data on operations used once a project is implemented based on the same assumptions as data from operations before the project was implemented to ensure consistency when comparing data.

[22] Whether the verifier can place reliance on statutory and other formal accounting records depends on how formal (audited) accounting reports align with the data related to calendar years in the emission reports, baseline data reports and annual activity level reports.

[23] It may be necessary to have a sworn and signed management declaration where the operator confirms certain issues (e.g., whether certain installation specific operating conditions have occurred).

Checks on alternative measures (section 4.8): the verifier focuses on projects, processes and associated evidence provided by the operator and checks for example the following issues:

- whether a proposal or feasibility study for the alternative measure has been carried out with information on possible emission reductions, what projects have been carried out to implement alternative measures and likely reductions to be achieved;
- whether a comparison was done between alternative measure(s) versus recommendations made from an energy audit to identify the best options for implementation;
- how the alternative measure was selected and approved, including the decision making on approval for specific projects;
- allocation of finance to the project(s) selected and, where relevant, the timing of implementation[24];
- project planning and project management of the implementation process;
- selection of, and procurement from, technical suppliers (or providers of a service, e.g., behavioural changes);
- whether implementation of the alternative measures has been completed, and there is a formal completion certificate/sign off etc;
- whether equivalent GHG reductions have been achieved with implementation of alternative measures compared to the GHG reductions expected from implementation of the energy efficiency recommendations. This would include for example checks on pre- and post-implementation emission data and application of the emission factor (e.g., t CO_2/t product) and assessing how this compares between alternative measures and the energy efficiency recommendations. In that case, it is important to isolate the project's reductions from reductions that might be achieved through other projects or changes in the activity at the installation.

The abovementioned checks can be carried out under the **current competence of the ETS verifier** without requiring an additional accreditation scope.

In order to carry out the checks described in this section, the operator has to provide the verifier with the necessary information during the strategic analysis and other stages of the verification. Please see section 6.1.2 of GD4 on verification of allocation data for more information.

The verifier's conclusions on the checks described in this section have to be stated in the verification report, including:

- a confirmation that the relevant checks have been carried out;

[24] For example, an installation could decide to implement a specific action to increase energy efficiency, but it may not be able to be implemented until the next major shutdown of the relevant process.

- a confirmation that implementation of recommendations has been completed or that one of the exceptions to conditionality apply (e.g., the energy efficiency recommendation(s) made was not relevant to the installation/sub-installation);
- any other observations that are relevant for the CA (e.g., information that the implementation of specific recommendations has not been completed, any anomalies found in checking implementation of recommendations, any limitations in the verifier's checks that were carried out)

The verification report template for the baseline data report and annual activity level report will be updated. Both the template and GD4 on verification of baseline data reports and annual activity level data will provide further guidance.