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Guidance Document n°4

on the harmonized free allocation methodology for the EU-ETS post 2020

Verification of FAR Baseline Data Reports and validation of Monitoring Methodology Plans

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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 new allocation methodology for Phase 4 of the EU ETS (post 2020) established by the Delegated Regulation of the Commission XX/XX on "Transitional Union-wide rules for harmonized free allocation of emission allowances pursuant to Article 10a(1) of the EU ETS Directive" (FAR)[1].

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 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 3[2]. It takes into account discussions within several meetings of the Climate Change Policy Expert Group, as well as written comments received from stakeholders and experts from Member States.

1.2 Legal Requirements

The EU ETS Directive[3] was revised in 2018. Most provisions in the Directive are similar to the ones in the previous version of the Directive. However, there are some differences in the legal framework, the way the cap is determined, the free allocation and the auctioning of emission allowances. These differences are explained in GD 1"General Guidance on the harmonised free allocation methodology for the EU ETS post 2020".

A key change in the legal framework is the delegated act that the Commission has adopted to provide harmonised rules for the allocation of free allowances. This delegated act is Regulation XX (hereinafter referred to as "Free Allocation Rules (FAR)")[1] which includes more detailed requirements on the definition of sub-installations, determination of historical activity levels per sub-installation and the

[1] Commission Delegated Regulation (EU) …/... of 19.12.2018 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council

[2] By a consortium of consultants (Ecofys NL, Fraunhofer ISI, Entec).

[3] Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC, including all amendments, in particular Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814. Download consolidated version: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02003L0087-20180408

collection, monitoring and reporting of data needed to calculate the amount of allocation of allowances for free[4]. Compared to the Community-wide Implementing Measures (the CIMs[5]) that were valid in the third trading period, the FAR is a regulation that is directly applicable to operators. Member States no longer have to implement the requirements through their national legislation.

The requirements for verification of the allocation data are included in the Accreditation and Verification Regulation[6] (AVR) that is also applicable to annual emission verification. The revision of the regulation applying to 2013-2020 has been used to incorporate rules on the verification of allocation related data.

Other relevant legislation concerning free allocation of allowances includes:

- The updated Benchmark values to apply in the calculation of sub-installation allocation that are provided by the Benchmark Update Implementing act[7]
- The updated Carbon Leakage List (CLL), identifying the sectors and activities eligible for 100% free allocation under the new carbon leakage rules in Phase 4[8].
- Rules outlining how changes in a (sub-)installation's production levels affect its allocation are established in the Activity Level Change implementing act (ALC)[9]

More guidance on applicable legislation is included in GD1"General Guidance on the harmonised free allocation methodology for the EU ETS post 2020".

[4] 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.

[5] Commission Decision 2011/278/EU of 27 April 2011 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council.

[6] Regulation (EU) 2018/2067 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council, replacing Regulation (EU) 600/2012.

[7] Implementing act XX

[8] Commission Delegated Decision (EU) .../... of 15.02.2019 supplementing Directive 2003/87/EC of the European Parliament and of the Council concerning the determination of sectors deemed at risk of carbon leakage for the period 2021 to 2030.

[9] Implementing act XX

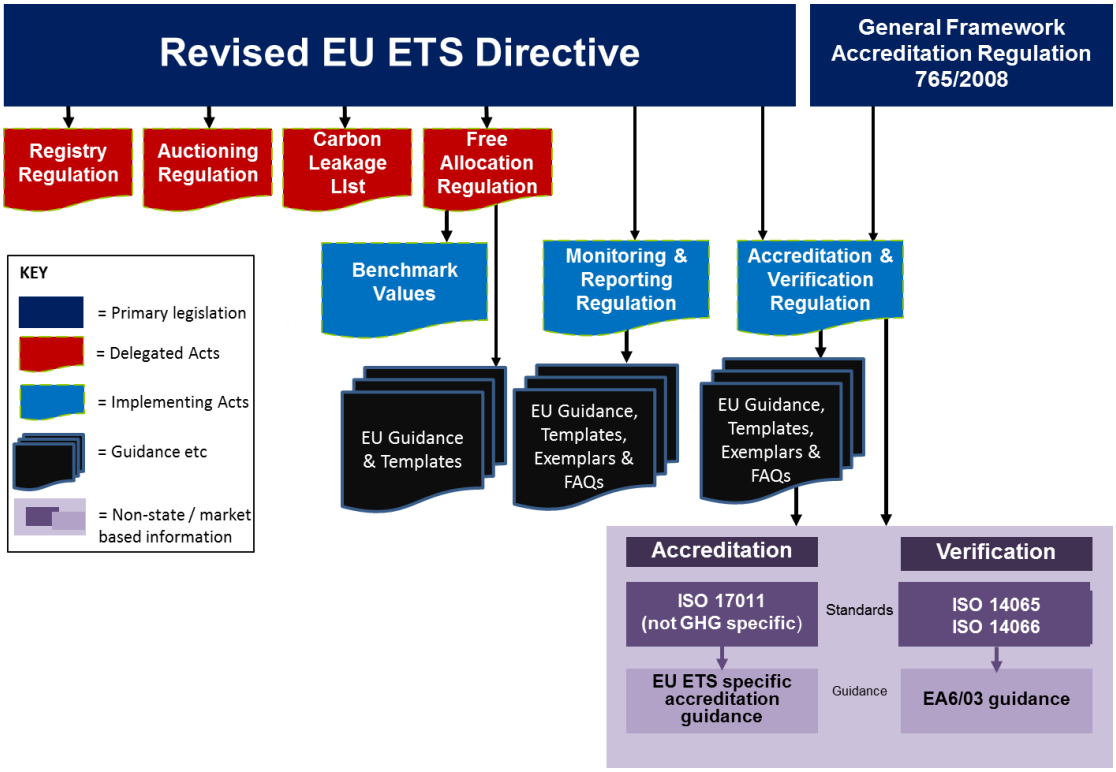

Figure 1 - Relationship of the EU ETS regulations and guidance etc.

1.3 Scope of this guidance document

This document aims to provide guidance on the verification of data relevant to the free allocation of allowances and on the accreditation of verifiers that conduct such verification. For verification of such data, it gives information on:

- What a verifier should check during the verification of relevant data;
- What principles the verifier should apply to such verification;
- The steps in the verification process and the specific rules applicable when verifying relevant data;
- Accreditation of verifiers carrying out such verification, as well as specific competence and impartiality requirements that apply.

This document is relevant for the verification of the baseline allocation data for existing and new entrant installations[10]that are eligible for free allocation and want to apply for free allocation as well as for new entrants under Phase 4 of the EU ETS (section 3). It also contains information on the verification of annual activity data.

[10] For new entrants starting in 2019 and 2020 an application will need to be made under the Phase 3 CIMs for those two years and under the Phase 4 FAR for the first 5 years of Phase 4, and subsequently.

References to Articles within this document generally refer to the revised (2018) EU ETS Directive, the FAR and the revised AVR in their latest version. An overview of the main changes in this guidance document compared to the 2011 version developed for Phase 3 is included in Annex 5. Please note that the contents of this guidance document have significantly changed as a result of new rules in the revised ETS Directive, the revised AVR, and the FAR.

1.4 Information available

This guidance is not a stand-alone document. It is based on the AVR, the FAR and other relevant legislation and should be read together with other guidance documents. It provides clarification on how those other documents are to be applied in the context of collecting and reporting data relevant to free allocation and the update of the benchmarks.

Since the verification of FAR related data follows the general rules of verification under the AVR, it is implied that the reader of this guidance is familiar with the suite of guidance provided for the AVR[11], in particular the AVR Explanatory Guidance (EGD I). Furthermore, the reader should be familiar with the basic concepts of monitoring and reporting under the EU ETS as required under the MRR[11]as well as specifically for the FAR as outlined in Guidance Document 5 on Monitoring and Reporting in Relation to the Free Allocation Rules.

Furthermore, the following documents must be taken into account for full understanding of the verification tasks and requirements:

- the EU ETS Directive;
- Commission Delegated Regulation (EU) …/... of 19.12.2018 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of the ETS Directive [the Free Allocation Rules] (FAR)
- Other relevant legislation such as the Benchmark Update Implementing Act, the updated carbon leakage list, and the Activity Level Change Implementing act
- Commission Regulation (EU) 2018/2067 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87 (AVR)
- EA 6/03: European Co-operation for Accreditation document on the recognition of verifiers under the EU ETS Directive

[11] All guidance material for the annual monitoring and reporting under the MRR and for accreditation of EU ETS verifiers and verification of emissions can be found on the Commission's website under https://ec.europa.eu/clima/policies/ets/monitoring_en#tab-0-1.

- The templates provided by the Commission for the monitoring methodology plan (MMP), the NIMs baseline data reports, new entrants reports, and verification reports[12];
- Guidance documents provided by the Commission for the data collection, giving further interpretation of the FAR[12]. A list of the relevant guidance documents is included in Annex 2;
- Guidance documents provided by the Commission in relation to the AVR. A list of relevant guidance documents is included in Annex 2.
- Any relevant legislation and/or guidance of the Member State in which the installation is situated.

2 Verification of NIMs baseline data reports

According to Article 4(1) FAR, an operator that is eligible for free allocation of emission allowances may submit an application for free allocation to the competent authority (CA) by 30 May 2019 for the five years beginning on 1 January 2021.[13] For the subsequent five years an application must be provided by the required deadlines every five years thereafter. The application consists of:

- The NIMs baseline data report which is verified as satisfactory by an accredited verifier. This report contains the information listed in Annex IV of the FAR covering data relevant for the installation and sub-installation(s), and benchmark update, for each year of the baseline period.[14]
- The MMP (and any associated documents) forming the basis of the baseline data report. This plan states how data for the baseline report is collected, monitored and reported in accordance with the FAR. It also defines the installation's sub-installation boundaries as well as quality assurance and internal control measures. If the MMP has already been approved by the CA, it is not necessary to submit it again. More information can be found in the Guidance Document 5 on Monitoring and Reporting in relation to the Free Allocation Rules.
- A verification report giving the conclusions of verification of the baseline data report and if the MMP is not approved by the CA, conclusions on the MMP.

Where the CA dealing with allocation is not the same CA that deals with permits and annual emissions, it may be useful for the CA dealing with allocation to request the

[12] All guidance material on free allocation and relevant templates can be found on the Commission's website under **https://ec.europa.eu/clima/policies/ets/allowances_en#tab-0-1**

[13] Member States may set an alternative date for the submission of the application but no later than 30 June and not earlier than 30 April.

[14] The Member State may decide based on national administrative practices if this part of the application is a separate file combined with the NIMs baseline report or only the NIMs baseline report.

operator to submit the latest approved monitoring plan under the MRR to the CA dealing with allocation. The CA may request additional information to be submitted with the application on a case by case basis if further information is required in order to assess the completeness and plausibility of the data.

2.1 NIMs baseline report

Annex IV of the FAR defines the content of the NIMs baseline data report. The verifier checks all data in the report as well as underlying data that was used to compile the report. In the report are two sets of key data on which the verifier will give its opinion as to whether it is free from material misstatements – baseline data used for calculating allocation and data required for the benchmark updates (where relevant).The NIMs baseline data also includes the data that is relevant for the benchmark update where the benchmark is applicable: e.g. activity data for each product benchmark sub-installation. This guidance document will therefore include some information on how a verifier assesses such benchmark update data as part of the verification of the NIMs baseline data report.

Table 1 below gives information on what key data the verifier will express a conclusion and Table 2 below gives information that the verifier must evaluate for the purposes of corroborating the key data in Table 1.

Table 1- key data on which the verifier expresses a conclusion

For Free Allocations:

For each baseline year, for each sub-installation, the activity level. This includes (as relevant to the installation):

- Production levels of product benchmark sub-installations;
- Amounts of measurable heat eligible under the heat benchmark sub-installations and the district heating sub-installation, as result of the installation's heat balance;
- Amount of energy content of fuels eligible under the fuel benchmark sub-installations;
- Amount of emissions eligible under the process emissions sub-installations;
- For product benchmarks where exchangeability of electricity applies, the relevant quantity of electricity;
- Where applicable to the installation, the additional data listed in section 2.6 of Annex IV of the FAR
- Where applicable to the product benchmark sub-installation, the additional data listed in section 2.7 of Annex IV of the FAR

In addition, for the **update of the benchmark values** the following :

- The attributed emissions stemming from fuels, process inputs, measurable heat equivalent, production, import or export of waste gases or transferred CO_2,

Table 2 - Data for corroboration and checking

For Free Allocations:
Information necessary for understanding and corroborating the data in Table 1: • detailed annual verified emissions data at installation level and per sub-installation; • installation-wide balance of heat import, production, consumption and export; • attribution of energy to sub-installations; • installation-wide balance of electricity import, production, consumption and export; • installation-wide balance of waste gas import, production, consumption and export.

2.2 Role of the Monitoring Methodology Plan

The MMP provides a basis for the operator for monitoring and reporting of all data required under the FAR, i.e. for calculating the free allocation, as well as for updating the benchmark values. The MMP looks both backwards (for the baseline period 2014-2018) and forwards (for the baseline period 2019-2023 - and beyond), this has impacts on the requirement for data of 'highest achievable accuracy' that verifier's need to take account of (see section2.3).

Like the monitoring plan under the MRR, the MMP is intended to ensure consistency of data over time; it is an internal 'rulebook' to be followed by the installation's personnel. For this purpose, the MMP must be approved by the CA, by 31 December 2020 at latest. However, for the first baseline data report due in 2019[15] the FAR assume that it may not be possible to have the MMP approved prior to submission of the verified application (although it provides the option that MSs can require approval before submission of the application for free allocation). In this case the MMP has to be validated by the accredited verifier as being in accordance with the FAR[16]. Validation in this context means that the verifier checks whether the MMP is in compliance with the FAR. This is part of the verification of the baseline data report and will be carried out by the verifier in combination with the assessment of the accuracy of the data in the baseline data report. In practice, the verifier will start the verification with an assessment of the MMP against the FAR before looking in detail at the data and quality control systems. Any non-compliance with the FAR subsequently identified during detailed verification will also be evaluated.

In the verification of the first baseline data report that is due by 30 May[17] 2019 the verifier's focus in validating the MMP is on the MMP elements that underpin the

[15] The FAR provides flexibility for Member States to set a deadline between 30 April and 30 June of that year.

[16] The AVR uses the wording "where the MMP is not subject to the approval by the competent authority".

[17] The MS may set a different deadline between 30 April and 30 June 2019.

historic data for the period 2014-2018[18]. The “forward-looking” MMP elements that relate to subsequent allocation periods will be subject to CA assessment when the CA approves the MMP. Guidance Document 5 on Monitoring and Reporting in Relation to the Free Allocation Rules explains the different MMP situations, the contents of the MMP and how the CA approval of these plans should function.

If, however, during its validation of the MMP regarding the first allocation cycle the verifier identifies any clear non-compliances with the FAR in the "forward looking" elements, the verifier should report these in the verification report to draw the CAs attention to the fact that changes may need to be made to the MMP for the next cycle of reporting.

This validation will have an impact on the time required for verification and the activities carried out, including what checks the verifier will perform and how the verifier will report its conclusions as the verification report will include both validation of the MMP and verification of the baseline data report.

In all other cases approval of the MMP in advance by the CA is required. The verifier will then take the approved MMP as a starting point to assess whether the baseline data report is free from material misstatement. For further information please see section 6.2.

2.3 Implications for achieving data of ‘highest achievable accuracy’

Article 7 and Annex VII of the FAR require that operators use in their baseline reporting data of ‘highest achievable accuracy’. A hierarchy of most accurate data sources is defined in section 4 of Annex VII of the FAR for each of the elements of the FAR data collection process. A summary is given in Section 10 - Annex 3 of this document. More detailed guidance on this hierarchy can be found in Guidance Document 5.

Verifiers need to consider the context in which data is being compiled in order to assess whether the data being presented meets the definition of ‘highest achievable accuracy’. There are different scenarios. For historic data that will be used for baseline period 2014-2018, the operator will be using data that is already in their records. Where there are several options for data that can be used, data with characteristics from higher up the hierarchy is to be used unless it can be justified to use lower order data sources. For data being collected over time building up to the next allocation data gathering process in 2024 and future cycles, the MMP will specify what approach the operator intends to use to collect that data. Verifiers use different approaches when assessing the data sources in the different scenarios. For more information on what checks a verifier carries out please see section 7.

[18] The baseline data report to be submitted in 2019 relates to the baseline period 2014-2018. Therefore the verifier must validate that the MMP underpinning these data is in compliance with the FAR for this “baseline period”.

3 Verification of New Entrants' data

A new entrant that wants to apply for free allocation of allowances for Phase 4 has to submit to the CA an application after the start of normal operation of the installation. When applying for free allocation the operator must provide:

- All relevant information (for the application for free allowances) and a new entrant's data report that contains the data required in accordance with Annex IV of the FAR for each sub-installation separately. The new entrant's report relates to the first calendar year after the start of normal operation.
- An MMP that is approved by the CA
- A verification report containing conclusions on the new entrant's data report.

The application must specify the date of start of normal operation. Verification of the new entrant's report follows the same procedure as the verification of a NIMs baseline report. A verifier will carry out similar checks and activities to assess whether the new entrant's data report is free from material misstatements and to check the implementation of the MMP. However, there are specific elements concerning new entrants that a verifier will have to consider. This includes for example an assessment of the start date of normal operation. Where the verification of new entrants differs from the verification of the NIMs baseline data report this will be indicated in this guidance.

4 Verification of Annual Activity Data

This section is intentionally blank and will be updated in a later version– once the rules on Annual Activity Data reporting are available.

5 Accreditation of verifiers

5.1 Accreditation

As the requirements for verification of data relevant to free allocation are included in the AVR, the approaches and requirements for annual emission verification also apply to the verification of free allocation data unless it is specifically stated differently in the AVR. This also applies to the accreditation of verifiers carrying out verification of allocation data. A verifier is a legal entity or part of another legal entity carrying out verification activities according to the AVR and being accredited

by a national accreditation body pursuant to Accreditation Regulation 765/2008 and the AVR[19].

According to Article 44 of the AVR a verifier that wants to carry out verification of baseline data reports must be accredited for the following scopes:

- Scope 98 listed in Annex I of the AVR (other activities pursuant to Article 10a of Directive 2003/87/EC). This is the scope that relates to the verification of data relevant to free allocation of allowances. This includes the verification of baseline data reports, new entrant data reports and annual activity level data, and
- the scope of the technical sector activity referred to in Annex I of the AVR for which the verifier is carrying out verification. An installation can require that the verifier is accredited against multiple sector scopes, if the installation carries out more than one of the activities listed in Annex I of the Directive.

For example, if the installation is a cement factory, the verifier must be accredited at least for scope 6which includes cement production and scope 98.

The accreditation of the verifier must be granted by, and still be valid at, the time the verification report is issued to the operator.

The same steps and procedures in the accreditation process apply to the accreditation of verifiers wanting to carry out verification of free allocation data as apply to accreditation in relation to annual emissions verification. The national accreditation body (NAB) has to assess whether the verifier and its personnel undertaking the verification activities:

- have the competence to carry out verification and understand the requirements of the FAR;
- are performing the verification in line with the AVR;
- meet the requirements in Chapter III of the AVR which cover competence, impartiality, procedures, documentation and further requirements stated in EN ISO 14065.

Once accreditation is granted, the NAB will monitor the performance and competence of the verifier through annual surveillance and reassessment. The AVR requirements on surveillance and reassessment, which are used for verifiers active in annual emissions verification, will also apply to the monitoring of verifiers that are carrying out verification of free allocation data. Article 54 AVR regulates when a NAB can impose sanctions such as suspension, withdrawal of the accreditation certificate and reduction of scope. More guidance is provided in Chapter 6 of the AVR Explanatory Guidance on verification (EGD I).

[19] The AVR allows a Member State to set up a certification system provided verifiers meet the same requirements as accredited verifiers. Certification is currently not applied by any Member State. Therefore, the requirements on certification in the AVR are not further discussed in this guidance document.

5.2 Competence requirements for verifiers

The verifier and its personnel involved in verification activities have to be competent to perform the verification. Competence is not only knowledge but also the skills to apply that knowledge and to carry out prescribed activities. The AVR contains EU ETS specific competence requirements for the verification team as a whole, as well as for the EU ETS auditors, lead auditors and technical experts individually.

EU ETS auditors and EU ETS lead auditors carrying out verification of allocation data need to have:

- knowledge of the Directive, the FAR, the AVR and applicable guidelines and legislation issued by the Commission and the Member State in which the verifier is carrying out verification. This includes legislation and guidance mentioned in sections1.2, 1.4 and 9 (Annex 2) of this guidance.
- Knowledge and experience of data and information auditing.
- The ability to perform verification activities.
- Knowledge and experience in the sector specific technical monitoring and reporting aspects that are relevant to the specific scope of accreditation. This not only includes the sector in which the operator is active but also the monitoring and reporting aspects in relation to free allocation data.

The requirements for EU ETS lead auditors are included in AVR Article 39. In addition to requirements on the knowledge and experience of EU ETS auditors, the lead auditor should be able to lead the team and be responsible for carrying out verification activities and reaching verification conclusions.

The requirements for the verification team (e.g. on composition and competence) are listed in Article 37 AVR. Each team member should have a clear understanding of its individual role in the verification process and have the ability to communicate effectively in the language necessary to perform the assigned verification activities. The Article also contains competence requirements for the verification team as a whole:

- At least one person in the verification team must have the technical competence and understanding required to assess the installation's activities in the sector and the monitoring and reporting process for that sector. Please see AVR KGN II.7 for further information.
- Where the verifier carries out verification of free allocation data at least one person in the team should also have the competence and understanding required to assess the technical aspects of collecting, monitoring and reporting allocation data.
- At least one person in the verification team needs to be able to communicate in the language required for the verification of the operator's report.

AVR KGN II.7 explains the specific requirements for verifiers carrying out annual emission verification. These requirements are also relevant for verifiers carrying out verification of allocation data. The following sections of this guidance outline

requirements for assessing MMPs and baseline data reports or new entrant data reports. NABs and verifiers need to be aware of any additional competence requirements necessary to complete identified activities and make all necessary provisions for ensuring that those competence requirements are met. Examples of additional competences required for auditors and verification teams checking free allocation data are included in section 7.2. These additional competences will depend on the circumstances of the individual installation and the benchmark applicable. For assessing data relevant for the heat benchmark sub-installation a different skill set may be needed as compared to assessing data in relation to the fuel benchmark or process emission sub-installation. For product benchmark sub-installations in particular, the focus of work (the activity level) may be an area not normally addressed by verifiers in annual emissions verifications[20]. Therefore additional technical understanding of the details of the production process may be required to ensure that assignment of products is made to the correct benchmark etc.

As with annual emission verification, each FAR verification must include review by an independent reviewer that must meet the requirements laid down in AVR Article 39. An independent review includes every element of the verification including the assessment and validation of the MMP where this is required. Please see AVR KGN II.7 for further information.

If the EU ETS auditor, lead auditor or independent reviewer needs support on a specific subject matter, a technical expert may be added to the verification team to provide detailed knowledge and expertise on that subject matter. As explained in AVR KGN II.7 this could concern all types of issues. In relation to the verification of free allocation data technical experts could in particular be useful for more technical issues at individual installations such as:

- the determination of product quantities through mass balance;
- steam/heat measurement and accounting and the rules on attributing emissions of CHP[21] units,
- In relation to attribution to sub-installations under section 3.2(1)(b) of Annex VII of the FAR: verifying “estimates based on the ratio of free reaction enthalpies of the chemical reactions involved or based on another suitable distribution key that is corroborated by a sound scientific methodology”.
- In relation to measurement instruments or procedures not under the operator’s control under FAR Annex VII 3.3(c): evaluation of *“empirical correlations”* provided by third parties, such as equipment suppliers, engineering providers or accredited laboratories.

[20] Annual emissions verification is likely to have already encompassed checks on the quantity of fuels and materials and on NCV; these parameters also feed into the baseline activity level data for fuel and process sub-installations; similarly, elements of heat sub-installation activity level data may also have been checked, where relevant to annual emissions reporting

[21] Combined heat and power; also referred to as “Cogeneration”.

- In relation to indirect determination methods under section 3.3. of Annex VII of the FAR: verifying calculations based on:
    - "known chemical or physical process including appropriate accepted literature values for the chemical and physical properties of substances; appropriate stoichiometric factors; and thermodynamic properties such as reaction enthalpies"
    - "installation's design data such as the energy efficiencies of technical units or calculated energy consumption per unit of product"
    - "empirical tests for determining estimation values for the required data set from non-calibrated equipment or data documented in production protocols"

Given the short timeframe available for the first baseline report verification this may especially be needed when a verifier is not able to develop all the relevant competencies within the verifier's personnel in time. The technical expert must have:

- the competence and expertise required to effectively support the EU ETS auditor, lead auditor or independent reviewer on the subject matter for which their knowledge and expertise is requested;
- sufficient understanding of EU ETS specific legislation including the FAR and associated guidance, data and information auditing and the activities needed to carry out assigned tasks. The technical expert does not have to possess full competence on all these issues but they should understand them sufficiently to be able to provide the necessary support during the verification.

Article 36of the AVR requires the verifier to establish, document, implement and maintain a competence process to ensure that all verification personnel are competent for the tasks that are allocated to them. This competence process includes establishing general and specific competence criteria for each person involved in verification, training, monitoring performance of personnel etc. For further explanation please see Chapter 5 of AVR EGD I, the explanatory guidance on EU ETS verification. The verifier needs to ensure that the elements of its continuous competence process are updated to encompass the FAR, use of associated templates and the relevant guidance material. The competence process should be designed in such a way that the verifier can select a competent team covering EU ETS lead auditors, auditors and, where relevant, technical experts.

5.3 Impartiality requirements for verifiers

The AVR contains EU ETS specific provisions on the impartiality and independence of a verifier and its personnel undertaking verification activities. These provisions include restrictions and prohibitions for both the verifier and its personnel. The verifier must be independent from an operator and bodies that are trading emission allowances. An explanation of the applicable impartiality requirements is given in Chapter 5 of AVR EGD I.

As for annual emissions verification, verification of free allocation data means that the provision of technical support/consultancy to the operator in relation to its FAR accounting process is not allowed. The verifier or any part of the same legal entity must not provide services to develop part of the monitoring and reporting process that is described in the MMP, including development of the monitoring methodology, the baseline report, new entrant data report and the drafting of the plan itself. This includes advice on any element in the approved MMP including consultancy on setting up control activities and procedures that are listed in the MMP.

A verifier or any part of the same legal entity that provides technical assistance to develop or maintain the system implemented to collect, monitor and report allocation data, including data management systems etc. would have a conflict of interest.

The elements mentioned above are not exhaustive. This means that other activities can also lead to an unacceptable risk to impartiality. Further guidance on impartiality requirements and how to set up a process to ensure continuous impartiality and independence is included in Chapter 5 of AVR EGD I.

For the first cycle of verification of the FAR baseline data reports in 2019, validation of the MMP by the verifier is not considered to compromise independence and impartiality as this is a check against the requirements of the FAR and not an approval of a unique methodology developed by the operator. Checking compliance with underlying regulations is a normal part of the verifier's work and part of the verification of the baseline data report due by 30 May 2019. It focuses on the MMP elements that are related to the backward-looking part of the MMP: i.e. the MMP elements underpinning the data related to the baseline period 2014-2018. Due to the timing of the first cycle for Phase 4, this requirement is being made a full and explicit task for the verifier to assess and report on.

5.4 Information exchange requirements

Chapter VI of the AVR contains requirements on the information exchange between NABs and CAs. These requirements also apply to issues in relation to verifiers that are active in the verification of baseline data reports, new entrant reports and annual activity level data. This means that:

- Verifiers carrying out verification of free allocation data need to notify their planned time, place of verification and details on operators they are verifying to the NAB by the 15th of November each year, if this data is available. If there are subsequently changes in the data or if it concerns the verification of baseline data reports for 2019[22] the verifier must notify their plans within a timeframe agreed with the NAB (Article 77 of the AVR);

[22] For the verification of baseline data reports in 2019 notification will not be possible by the 15th of November 2018.

- NABs have to submit a work programme by the 31st of December to the CA of the country in which verifiers accredited by that NAB is carrying out verification of allocation data. This programme includes information on their planned activities in relation to those verifiers. If there are changes in the planned activities, an update of the work programme is required by the 31st of January (Article 71(1) of the AVR).
- NABs have to submit a management report by the 1st of June to the CA of the country in which verifiers accredited by that NAB are carrying out verification of free allocation data. This report contains information on the NAB's activities in relation to those verifiers. This includes, for example, accreditation details, changes in the scope, summarised results of surveillance and reassessment (Article 71(3) of the AVR).
- NABs have to share information on administrative measures imposed on verifiers with the CA of the country in which verifiers accredited by the NAB are carrying out verification of free allocation data as well as to the CA of the country where those verifiers are established (Article 72 of the AVR).
- CAs of the MS where the verifier is carrying out verification of free allocation data have to submit an information exchange report to the NAB that has accredited the verifier. That information exchange report includes information on issues that they found during their assessment of baseline data reports, new entrants reports and annual activity level reports together with the corresponding verification reports. It can also include information on issues found during inspection, assessment of internal verification documentation of the verifier in accordance with Article 26(3) of the AVR or information on complaints. The recommended date for submitting such a report is the 30th of September.

More information for understanding of information exchange requirements and the use of the Commission templates for the aforementioned reports can be found in Chapter 10 of AVR EGD I and AVR KGN II.10 on information exchange.

6 The verification process

6.1 General approach

In principle, verification of FAR baseline data reports follows the approach defined in Chapter II AVR. The process will be consistent with the approach that has already been used for the verification of the annual emissions data that forms one of the inputs to the baseline data reports. This approach facilitates an efficient verification of the data required for free allocation of allowances (e.g. for product and heat sub-installations).

When carrying out activities required for baseline data verification, the verifier will take into account that it is not installation level emissions, but historic activity levels at sub-installation level and other relevant data that are subject to verification. For

verification of fuel benchmark and process emissions sub-installation data this may mean repeating some work done during annual verification of fuel and process emissions data if this data is structured differently for sub-installation(s).

Furthermore, the requirements in the MMP have to be considered instead of the annual emissions monitoring plan. As discussed in section 2.2, in some cases the MMP may not have been approved by the CA in advance of the verification work starting. In those cases, the verifier is also required to validate the MMP against the requirements of the FAR. Where they find non-compliance the operator is required to update the MMP and the associated data set.

Applying those considerations, the main activities outlined in the figure below are to be carried out during verification. These activities are interconnected and interdependent. This means that findings during the verification process can result in the need to reconsider one or more steps taken earlier in the verification process and subsequently adjust those steps.

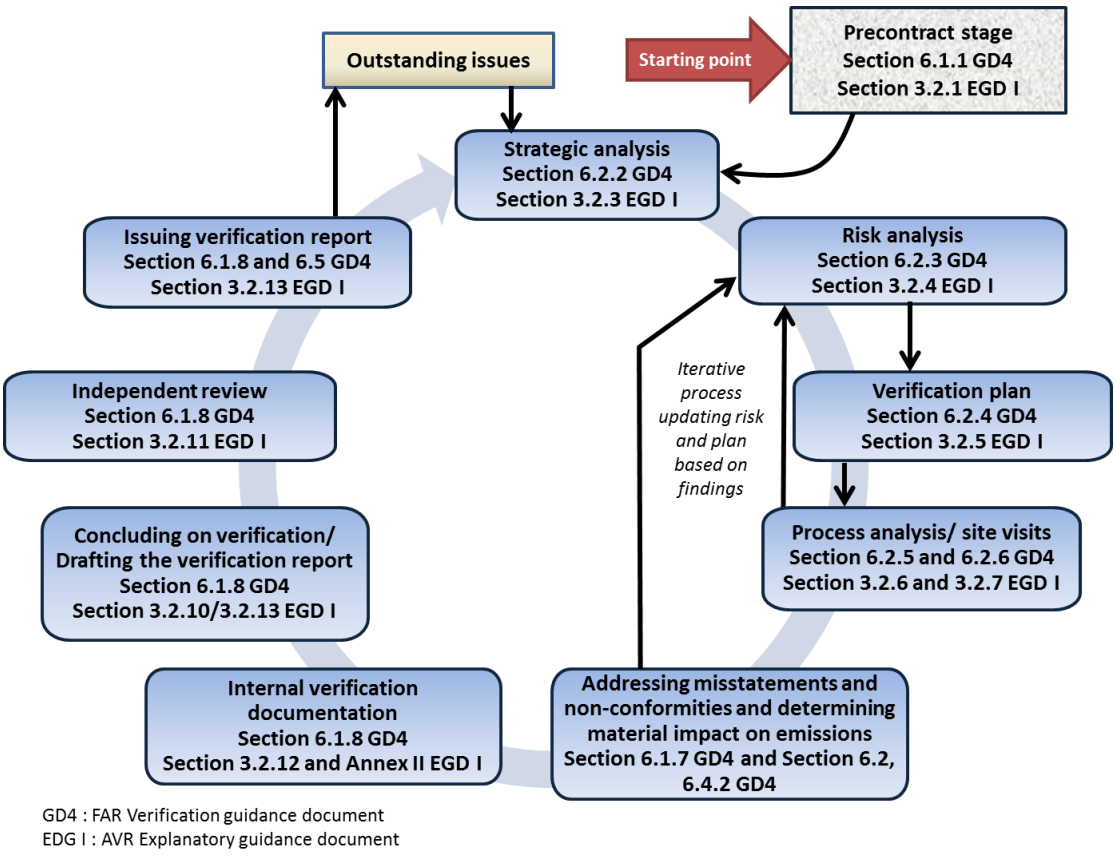

Figure 2 - Verification cycle

6.1.1 **Pre-contract obligations**

According to the AVR the verifier shall analyse, based on documents provided by the installation operator, if it is able to carry out the verification tasks for that installation. For this determination the verifier has to decide inter alia if it holds the necessary accreditation for the applicable scopes of work; and whether it has the

competence, personnel and resources to set up a verification team suitable for that installation.

Furthermore, the verifier shall determine the amount of time needed for the verification tasks to be carried out. The verifier should ensure that the scope of the verification work and the time allocated in the contract is consistent with the verification risks identified. Insufficient contracted time may not be used to reduce the amount of work needed to satisfactorily complete the verification in line with its risks. When determining the time needed for verification, the verifier shall take into account factors including the installation's complexity, the number and nature of the applicable benchmarks, and the complexity of individual sub-installation(s). The verifier will also assess whether the documentation provided by the operator is sufficient for making a quotation, and if the business risks involved with the verification can be mitigated sufficiently by developing a suitable verification approach.
Documents to be provided by the operator shall include at least:

- The MMP (and evidence of the CA's approval, if relevant);
- the installation's GHG annual emissions permit and associated approved monitoring plan;
- a description of the installation (including a simple flow chart, where it helps to improve clarity) if this is not included in one of the documents above;
- the verified emission reports and verification statements (where these are separate documents) for the baseline years and a commentary on any corrections made to relevant data post-submission of the verified report to the CA;
- the verified FAR baseline report for the previous allocation period (not applicable to the first baseline data report in 2019);
- The FAR baseline data report (in the format applicable in the Member State where the installation is situated);

Depending on the timing of establishing the contract[23], the FAR baseline data report or the latest verified emission report may not be available in the pre-contract stage. In those situations the verifier may use baseline data reports from the previous allocation cycle and annual verified emission reports from earlier years. Once the current period reports are available, the verifier will need to re-assess the information to ensure that the contracted time and the verification plan are still appropriate.

During the pre-contract stage the verifier will sign a contract with the operator. Article 9 AVR and EA 6/03 contain requirements on including certain conditions in

[23] Pragmatically contracts are likely to be negotiated well before the year-end for the relevant reporting cycles, therefore – realistically – it may not be possible to review a copy of the baseline report (even in draft) at the time that pre-engagement evaluation is being conducted; and waiting to negotiate a contract till the draft report is available means that operators may not be able to contract a verifier in time for the submission deadline.

the contract. One key aspect in the contract is time allocation. The time allocated cannot be a fixed number; if during the detailed verification the verifier finds that additional time is needed to properly carry out necessary activities, the time allocation initially given in the quotation must be adjusted accordingly. Therefore, the contract must have a provision for this adjustment. Please see KGN II.12 on time allocation for further information.

6.1.2 **Strategic analysis**

According to Article 11 of the AVR the verifier shall analyse, based on the information provided by the operator, the nature, scale and complexity of verification activities to be carried out. It shall gain an understanding of how the operator has collected and determined the free allocation data (and benchmark data, if relevant) to be verified. The information will include not only the documents listed above but also other relevant information including:

- The GHG emission permit and other environmental permits where these give relevant information for production processes;
- copies of documented procedures associated with the MMP concerning, for example:
    - Assigning responsibilities for monitoring and reporting;
    - Regular evaluation of the appropriateness of the MMP and the effectiveness of monitoring;
    - Keeping track of NACE and PRODCOM codes, and products produced by each sub-installation;
    - Keeping track of MMP modifications;
- Data flow activities and control activities to ensure the data contains no anomalies, including in relation to:
    - Internal review and validation of data;
    - Corrections and corrective actions;
    - Quality assurance of IT and measurement systems;
    - Control of outsourced processes;
    - Control of documents and records;
- The operator's risk assessment;
- Any other relevant information which supports the verifier in understanding the activities carried out at the installation.

When analysing the information, the verifier will specifically look at the complexity of the accounting for individual sub-installations and the way aggregate data is apportioned to them, the applicable benchmark, specific details on the calculation approach etc. given in the MMP and the associated data flow and internal control activities.

In addition, where the MMP specifies different internal controls for data that has been subject to control under the MP for prior annual reporting and verification, the verifier must establish why the controls are different and whether that has an impact on any data that has previously been verified.

Where the verifier has in previous years conducted the verification of relevant annual emissions reports or annual activity data for the same installation, the verifier will as part of the strategic analysis assess what evidence and data it already holds in its internal verification documentation for the reporting years being assessed for the baseline to ensure that verification of the historic baseline data is conducted efficiently. For example, some data for fuels and process sub-installations will likely already have been evaluated during the course of annual emissions verifications (e.g. fuel/material quantities, NCV etc.); associated instrumentation will have already been inspected, and the maintenance status of instruments etc. will have been checked during annual site visits. In those cases, the verifier should consider to what extent these earlier verifications cover the data being verified for the current baseline and whether the scope(s) of the earlier verifications coincide(s) with the current verification.

6.1.3 **Risk analysis:**

The verifier must assess the risks of misstatements, non-compliances and non-conformities, and their material effect on the reported data. The outcome of the risk analysis determines how and to what extent the verification activities should be designed, planned and implemented. The risk analysis centres on identifying and assessing two types of risks, i.e. inherent risks[24] and control risks[25]. Together with the detection risk, these risks form the overall verification risk: i.e. the risk that the verifier issues an inappropriate verification opinion. Please see the key guidance note on risk analysis for more information (AVR KGD II.2).

According to the AVR the verifier shall assess the likely inherent risks, control risks and detection risks based on the outcome of the strategic analysis. In addition, the verifier will assess the verification risks associated with

- reliance upon evidence obtained during prior year site inspections and interviews etc. (if relevant) to determine if additional visits are necessary to facilitate evidence gathering; and

[24] Inherent risks are linked to the operator's data flow activities assuming that there are no related control activities to mitigate these risks, and without considering the operator's control environment. Examples of inherent risk include: significant manual input and transfers of data; complex data management systems for collecting and quantifying product or emissions data, multiple sub-installations, complexity and number of emissions sources and fuels used – especially where these relate to more than one sub-installation, malfunctions, shut-downs or changes in the production process etc.

[25] Control risks are linked to the operator's internal control environment and the potential for internal controls to fail or break down. Examples of control risk include: automated controls in the IT system that are missing or not functioning properly, no calibration of measurement equipment, internal data reviews and the checking of the manual transfers of data that are not carried out, or not carried out to the rigour required in view of the level of associated inherent risk.

- reliance upon evidence provided by other third-party auditors, such as financial auditors in the case of product information.

The risk analysis is an iterative process and must be updated if detailed verification activities during the process analysis show that the risks are higher or lower than initially assessed. In that case the verification plan also needs to be updated.

6.1.4 **Verification plan**

The risk analysis determines how the verifier sets up the verification plan, which consists of three elements:

- a verification programme[26] describing the nature and scope of verification activities, as well as the time and manner in which these activities are to be carried out. It also involves planning of all activities. According to Article 26 of the AVR justifications for exclusion of activities, based on the verifier's risk analysis shall be fully documented in the internal verification documentation;
- a test plan setting out the scope and methods of testing specific control activities and procedures for control activities;
- a data sampling plan setting out the scope and methods of data sampling related to data points underlying the aggregated data; and the tests to be performed on sampled data.

Please see the key guidance note on risk analysis (AVR KGD II.2) on how the risk analysis impacts the set-up of the verification plan.

6.1.5 **Process analysis (detailed verification)**

The objective of this stage of the verification is to collect and document detailed evidence upon which the verifier can base its verification opinion. During the process analysis the verifier must implement the verification plan. During this stage the verifier will:

- assess the implementation of the MMP: assessing data flow activities, control activities and procedures as well as checking sub-installation boundaries and the application of the methodologies.
- if applicable[27], assess the MMP against the requirements of the FAR in order to confirm that the MMP is in compliance with requirements;
- do substantive data testing consisting of data verification, analytical procedures and checking the monitoring/data collection methodology;

The verifier will use different techniques and methods to carry out these checks: e.g. conducting interviews, observing how operators apply control activities, tracing data back to primary source(s), etc. More information is provided in AVR EGD I and AVR

[26] The verification programme is not just an agenda for the site visit but should provide sufficient detail of planned tests and activities to inform the team members what activities should be carried out.

[27] I.e. where the MMP is not subject to the approval by the CA and has thus not been approved in prior to submission of the baseline data report

KGN II.3 on process analysis. Section 7 of this document contains more information on what specific checks the verifier will do on data that is relevant for free allocation. A key aspect is that where the MMP has not been approved by the CA, the verifier will check the MMP against the FAR. This means that the verifier will specifically assess whether:

- the sub-installation boundaries are determined in line with the FAR, and are consistent with the boundaries of the installation as a whole (i.e. as permitted for annual emissions reporting);
- data relevant for the applicable benchmark(s) are attributed to the correct sub-installation without double counting or omissions;
- methodologies for collecting and monitoring data are applied correctly in line with the FAR;
- highest achievable accuracy and the correct hierarchy of accuracy is used;
- data gap methodologies are applied correctly in line with the FAR;
- data flow activities and procedures are established, implemented, documented and maintained correctly in line with the FAR.

Where the MMP is approved by the CA, the verifier will use the approved MMP as a starting point for planning its activities. Where the MMP is not subject to the CA approval, the verifier will assess the MMP against the FAR requirements as the starting point for planning its activities. For further information please see section 6.2.

In some cases, data sets may be too extensive to test all of them. If it is justified by the verifier's risk analysis, the verifier can apply sampling to the data or control activities to focus attention on the material aspects. Please see AVR KGN II.4 on the principles that apply to sampling.

If misstatements, non-conformities and non-compliance are found, the verifier will adapt the strategic and risk analyses and the verification plan accordingly.

6.1.6 **Site visits**

According to AVR Articles 21 and 31, site visits are required for the verification of baseline data reports. The purpose of a site visit is to gather sufficient evidence to conclude with reasonable assurance that the operator's data report is free from material misstatements. Activities during site visits include:

- interviewing staff, reviewing documents and assessing operator's procedures in practice;
- checking the installation and sub-installation boundaries, the data flow and assessing the completeness of source streams and emission sources;
- actual testing of the control activities and assessing the application of procedures mentioned in the approved MMP;

- obtaining physical evidence through assessment of measurement equipment, monitoring systems and processes[28].

The verifier's risk analysis determines whether additional locations are to be visited and at what times a site visit will be carried out.

An aspect to consider when verifying allocation data for the fuel benchmark and process emissions sub-installations – and some elements of the heat benchmark sub-installation – is that the data related to the baseline period will in some cases have already been verified during annual emission verification. Where the sub-installation covers the whole or a substantial part of the installation, e.g. offshore installations, and all data has been verified by the same verifier during annual emission verification, it may not be necessary to carry out further site visits if this is justified by the verifier's risk analysis and all relevant documentation can be accessed at a centralised location. This does not constitute a waiver of site visit. A visit was carried out during annual emission verification and a further visit to the centralised location where all documentation and data can be accessed is still required in those cases. The verifier has to pay particular attention as to whether:

- the scope(s) of verification of the historic emissions data for annual reporting in the past covers the same scope(s) as for verification of the baseline data reports;
- the free allocation data to be verified, the methodologies and installation boundaries, as well as data flow activities, control activities and procedures were assessed during annual emission verification.

If these scopes are not covered and not all relevant data has been verified before, additional visits will be necessary.

6.1.7 **Addressing misstatements, non-conformities and non-compliance**

The verifier must inform the operator, on a timely basis, if it has identified misstatements, non-conformities or non-compliance.

Misstatements	Omission, misrepresentation or error in the operator's baseline report. This does not include the uncertainty permissible under the FAR.
Non-conformities	Any act or omission of an act that is contrary to the MMP. Examples of non-conformity include not applying the methodology to calculate the baseline data correctly. If a non-conformity results in an error, misrepresentation or omission in the reported data, it shall also be regarded as a misstatement.

[28] It should be noted that the type and status of control systems and measurement instruments in use at the time that the data was gathered is what is important. So, checks on systems and instrumentation etc. during a site visit need to reflect the historic nature of baseline data for the first cycle; inspection of controls and instruments currently in place may not be relevant to the dataset.

Non-compliance	Any act or omission of an act that is not in line with the FAR or other relevant legislation. This includes national legislation. In some cases, non-conformities can also be a non-compliance with the FAR.

The operator is required to correct all misstatements, non-conformities and non-compliance identified by the verifier. This can, for example, be done by correcting the data in the baseline data report, updating the MMP if relevant, addressing omissions in the MMP etc.

Where non-compliance has been identified by the verifier and the MMP is not subject to CA approval, the operator must amend the MMP so that it complies with the FAR.

Where non-compliance has been identified by the verifier and the MMP is subject to CA approval, the operator has to notify the CA. Subject to the CA approval the operator is required to correct the non-compliance and the verifier will note any remaining non-compliance in its report.

Corrected misstatements, non-conformities and non-compliance must be documented in the internal verification documentation.

If misstatements, non-conformities and non-compliance are not corrected, the verifier has to assess the material impact of these issues on the reported data. Please see section 6.4.2.

The verifier will undertake additional activities if data gaps are identified (please see section 7.3).

6.1.8 **Concluding on the findings of verification**

When completing the verification and considering all the evidence gathered during the verification, the verifier is required to carry out the activities listed in Article 24 of the AVR. A key aspect of this step is that the verifier has to ensure that it has gathered sufficient evidence to support the verification opinion statement. For further information please see section 3.2.10 of AVR EGD I.

After evaluation of the evidence and before completion of the verification, good practice is for the verifier to obtain from the installation's senior management a signed 'Management Declaration' in which management confirms that they have provided all information and evidence that the verifier needs to complete their work. This declaration could also confirm in writing any justifications made for exceptions to the application of FAR rules etc. (for example, in relation to the application of highest accuracy data requirements).

Such 'Management Declarations' provide support to verifiers in managing their verification risks and potential liabilities. An example of such a Management Declaration is provided in Annex 4. It should be noted that such a declaration does not exempt the verifier from doing detailed checks on the data and compliance with the MMP and the FAR; nor does it exempt the verifier from further checks and sanctions (if relevant) by the NAB.

Independent review

Before the issuing of the verification report, the internal verification documentation and the verification report must be subject to an independent review. For further information please see section 3.2.11 of AVR EGD I.

Internal verification documentation

The verifier must compile internal verification documentation to provide a complete trail of evaluations and decisions that enabled the verifier to reach its verification opinion with reasonable assurance. All relevant documents used and all findings of previous verification steps are included in the internal verification documentation. Please see section 3.2.12 of AVR EGD I.

Verification report

According to Article 27 of the AVR the verifier shall issue the verification report including the final verification opinion to the operator. Please see section 6.5.

6.2 Scope of verification

For each individual data report submitted by an operator, the verifier is required to issue an opinion - on the basis of reasonable assurance – that the baseline data reported are free from material misstatement[29]. This work is conducted on the basis of Articles 6, 7(2) and 7(3) of the AVR which mean that the verified baseline data report or new entrant data report must be reliable – a faithful representation of reality. Verifiers must plan and deliver their work with an attitude of professional scepticism, in the public interest, and independent of other parties in the FAR process.

The scope of verification is defined by the tasks the verifier must perform to achieve the objective of verification: i.e. to ensure that the data for free allocation have been monitored in accordance with the FAR and that reliable and correct baseline data and allocation data are reported. According to Article 7(4) of the AVR the verifier must assess whether:

- The baseline data report is complete and meets the requirements of Annex IV of the FAR;
- The operator has acted in conformance with the requirements of the MMP approved by the CA (if applicable) or the operator has acted in compliance with the FAR in situations where the approval of the CA is not required for MMP[30];
- Data in the baseline data report are free from material misstatements. In order for the verifier to conclude this, it must obtain clear and objective

[29] 'Material misstatement' means a misstatement that, in the opinion of the verifier, individually or when aggregated with other misstatements, exceeds the materiality level or could affect the treatment of the operator's or aircraft operator's report by the competent authority.

[30] See section 2.2 on approval of the MMP in relation to the timing of the application for free allocation.

evidence from the operator to support the total data to be reported. To obtain the evidence required for a reasonable level of assurance and making this assessment on the material correctness of the data and associated information, the verifier will use analytical procedures, carry out data verification and assess the implementation of the monitoring methodology in accordance with AVR Articles 15, 16 and 17. Materiality thresholds for specific elements of the baseline and benchmark data are given in Article 23(4) of the AVR and an explanation of the application of materiality analysis for the FAR is given in section 6.4.2;

- Information can be provided in relation to the operator's data flow activities, control system and associated procedures to improve the performance of their monitoring and reporting. This activity is strongly linked with Articles 27(3)(p) and 30 of the AVR. The verifier has the responsibility to consider and assess whether there are areas for improvement in an operator's monitoring and reporting process with the intent of improving the rigour, robustness and quality of reported data. This relates especially to the data flow activities, the operator's risk assessment, the control activities, evaluation of the control system and the procedures mentioned in the MMP. If there are areas for improvement, the verifier must include a recommendation for improvement in the verification report[31].

One of the most important tasks of the operator is to develop a methodology for compiling existing available data – supplemented by (conservative) assumptions and estimations where necessary – for determining the historic baseline data and attributing that data to sub-installations. The aim is that only "data sources of highest achievable accuracy" are used. This means that where several sources for the same historic data set are available for the operator to select from, the operator is required to choose the data of the highest accuracy, and attach data from other sources for corroboration purposes. The essence of this data compilation process has to be documented in the MMP with justification as to why the data selected is deemed 'highest accuracy' (see section 2.3 in relation to historic vs forward looking data sets).

The MMP assessment by the verifier is therefore a key aspect of the verification. As outlined above the scope of the assessment differs in the situation where the MMP has been approved by the CA compared to the situation in the first cycle where the MMP may not be subject to approval by the CA. Differences related to checking of the MMP are summarised in the table below.

[31]However, whilst the verifier should identify weaknesses in control activities as part of the recommendations and inform the operator why it is considered a weakness, the verifier must not communicate in any way how the operator should resolve the weakness, as that would place the verifier in a consultancy role and compromise its independence.

MMP is not subject to approval by the CA the verifier will:	MMP is subject to the approval of the CA, the verifier will:
• The verifier checks during the strategic analysis whether the MMP to be validated is the correct version.	• The verifier checks in the strategic analysis whether the MMP is the latest version approved by the CA, whether there have been changes to the MMP in the reporting period(s), whether these changes have been significant and if yes whether they have been approved by the CA. More information on which changes are significant is provided in GD5 on Monitoring and Reporting in Relation to the Free Allocation Rules • When assessing implementation of the MMP, the verifier will also check CA correspondence on MMP approval.
• The verifier validates (checks) the MMP against the FAR to confirm that it is complete and complies with the rules. • The verifier assesses the correctness of the methodologies and the appropriateness of the data sources used for determining the historic baseline data (i.e. whether it demonstrably is the most accurate data available). The verifier assesses the operator's justification for selected data sources (based on the FAR) for reasonableness. • The verifier checks whether the detail in the MMP is commensurate with the complexity of the installation. • The verifier checks implementation of different elements of the MMP and assesses whether the actual situation for each sub-installation reflects what is recorded in the MMP.	• During its approval the CA will have checked the MMP against the FAR. • The verifier uses the approved MMP as a starting point to assess the accuracy of the data. • The verifier checks implementation of different elements of the MMP and assesses whether the actual situation for each sub-installation reflects what is recorded in the MMP. • To some extent the verifier will do cross checks between the MMP and the FAR: assessing the sub-installation boundaries, checking the appropriateness and implementation of control activities and procedures etc.
• When the verifier identifies non-compliance, the verifier informs the operator. The operator must update the MMP to be in compliance with the FAR.	• When the verifier identifies non-compliance, the verifier informs the operator. The operator is required to notify the CA and correct the non-compliance in agreement with the CA (e.g. updating the MMP and obtaining approval by the CA)
• Corrected non-compliance and action taken to correct these will be documented in the internal verification documentation.	• Corrected non-compliance and action taken to correct these will be documented in the internal verification documentation.

MMP is not subject to approval by the CA the verifier will:	MMP is subject to the approval of the CA, the verifier will:
• For non-compliance that is not corrected the verifier will assess the material impact on the reported data. • Non-compliance that is not corrected, before the verification report is issued to the operator, must be included in the verification report.	• For non-compliance that is not corrected the verifier will assess the material impact on the reported data. • Non-compliance that is not corrected, before the verification report is issued to the operator, must be included in the verification report.

For both situations described in the table above the verifier will:

- assess whether the sub-installations and their boundaries are correctly defined.
- check whether the methodology presented is transparent and allows for complete audit trails from primary data sources to the final figures in the FAR baseline data report.
- check completeness of the MMP ensuring neither gaps nor double counting have occurred.
- check whether the control activities and procedures are appropriately established, implemented, documented and maintained and whether these are effective to mitigate the risks. How the verifier checks the control activities and procedures is done in a similar way as for annual emission verification. More information on how to check control activities and procedures is provided in AVR KGN II.3 on process analysis.

6.3 Data assessment

During the process analysis the verifier will do detailed data verification and check implementation of the data collection and monitoring methodology applied. This will be based on the verification plan and the results of the strategic analysis and risk analysis. In addition to checks in relation to data identified in Annex IV of the FAR and the requirements of Article 10(5) of the FAR, the verifier will specifically check the following elements. These checks will be done irrespective of whether or not the MMP is subject to approval of the CA and will form part of the verification plan:

- Check whether all data for emissions, inputs, outputs and energy flows are attributed correctly to the sub-installation(s) in line with the system boundaries. The verifier's data checks also include, for example:
    - Checks that the sum of annual verified emissions attributed to individual sub-installations under Annex IV(2)(2) matches the total verified emissions for the relevant year; If these data do not match the verifier should check whether:
        - there are emissions associated with activities at the installation that are not eligible for free allocation. Section 4.2

of guidance document 5 provides further information on non-eligible activities (see also Table 3 below);

- any corrections made by the operator subsequent to the relevant verified report are reasonable[32];
- additional emissions have been attributed to sub-installations that are not reported under annual emissions reports, such as "internal source streams"[33] or emissions equivalent to imported measurable heat; and that these additional emissions are calculated correctly with no data gaps or double counting;
- relevant corrections for import and export of waste gases have been calculated correctly (see section 4.3 and 7.3 of guidance document 5).

- Confirmation that, where the operator normally reports annual emissions using mass-based emissions factor; the NCV used for energy reporting in the baseline report is determined in accordance with the requirement to report NCV under Standard Conditions.[34]

- Check whether data are complete and whether data gaps or double counting have occurred;
- Check whether activity levels for product benchmarks are based on correct application of the product definitions listed in FAR Annex I;
- Check whether activity levels for heat benchmark sub-installations, district heating sub-installation, fuel benchmark sub-installations and process emissions sub-installations have been correctly attributed according to the products produced and in line with Commission Decision (EU) 2019/xxx [Carbon Leakage List];
    - As part of these checks, confirm that the NACE / PRODCOM codes declared in the baseline report are consistent with other evidence of such declarations by the operator; or that there is a justifiable reason for a code declared to have changed.

[32] The verifier should check that they are working with the most up to date copy of the Annual Emissions Report (AER) since it is possible that a subsequent amendment was notified to the CA but the AER was not required to be re-verified.

[33] See section 4.2 of Guidance Document 5.

[34] Article 3(50) of the MRR defines Standard Conditions.

Table 3 - Activities not eligible for free allocation

Section 4.2 of FAR GD5 outlines those activities that are not eligible for free allocation and specifically draws attention to the following:

"…… 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 concerns in particular:

- *Fuels and/or measurable heat used for electricity production, and the related emissions;*
- *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 flaring outside product benchmark sub-installations, and the related emissions."*

During verification, the verifier may find misstatements in the data or non-conformities between data and the MMP. In such cases the verifier will request the operator to correct the identified errors, misrepresentations or omissions as well as non-conformities. The operator must update and improve the MMP where it is found by the verifier to be incomplete, erroneous, or contradicting rules laid down in the FAR. The operator must correct the associated baseline data in accordance with any improvements to the MMP, and the verifier will take account of these revisions in the subsequent verification work of the updated MMP (where relevant) and baseline data report. Please see Section 6.2 for more information on how to address identified non-conformities and non-compliance with the FAR.

Where the data required for the baseline data report is not available and there is a data gap, the operator has to use an alternative methodology or data source for completing the data gap provided that this methodology or data source is listed in the MMP (Article 12(2) of the FAR). If the MMP does not contain such a methodology or data source, the operator must use an appropriate estimation method for determining conservative surrogate data for the time period in which the data gap exists and for the respective parameter. The operator must include sufficient justification for the data gap and the method used in the baseline data report.

In the context of baseline data "conservative" means that a set of assumptions is defined in order to ensure that parameters relevant for allocation of free allowances are assigned values in a way that the resulting allocation is not higher than with application of the true value of that parameter[35]. Data gaps must be closed in a transparent way. More information on what checks a verifier does on these data gaps is provided in section 7.4.

[35] I.e. the resulting preliminary allocation will be lower rather than higher when a conservative estimate is done – this is different to what applies to annual emissions reporting.

The verifier must decide if any remaining misstatements, non-conformities or non-compliance have material impact on the reported data (see section 6.4.2). If the issues that have a material impact on the reported data remain unresolved at the end of verification, the verifier must issue a negative verification opinion statement. Furthermore, all outstanding misstatements, non-conformities and non-compliance are included in the verification report, including a reasoning why any of them have a material impact on the reported data.

If only misstatements, non-conformities or non-compliance remain that do not have a material impact on the reported data, the verifier can issue a positive verification opinion statement with comments. The verifier must list those issues in the verification report. This also applies to quantification errors in the data sets at a sub-installation level and non-aggregate level. i.e. if there are uncorrected mistakes at sub-installations but these do not have a material impact on the data, they still have to be reported. This will draw the attention of the CA to them.

Where no misstatements or non-conformities have been found, or where all misstatements and non-conformities have been fully corrected, the verifier can issue a positive verification opinion statement declaring the baseline data report verified as satisfactory.

The wording for such a verification statement is found in the verification report template provided by the Commission.

6.4 Methodological choices

6.4.1 **Level of assurance**

Article 7(1) of the AVR requires the verifier to carry out the verification with the aim of providing a report that concludes with reasonable assurance that the operator's report (e.g. baseline data report) is free from material misstatements. The degree of assurance that the verifier gives in its reported opinion statement on the accuracy of data relates to the depth and detail of verification. Please see section 3.1.4 of AVR EGD 1for an explanation of the application of reasonable assurance.

For the first cycle of FAR baseline data verification it may be difficult for the verifier to obtain assurance that all relevant existing data has been taken into account by the operator, because of the retrospective character of historical data (see also section 2.3). However, the FAR requires the operator to show the data flow from primary source to aggregated data; and explain how data has been collected and why it is considered data of 'highest achievable accuracy'. Operators must also provide alternative data sets for corroboration, if other data sources are available (e.g. by using correlations to other parameters).

For subsequent cycles of verification, it is likely that data quality may be higher, since the data will be collected based on an approved MMP that uses the best available sources for the future data collection This will potentially mean that the operator may install new measurement instruments where necessary to avoid the use of correlations and estimations - where this is technically possible and without incurring unreasonable costs.

Furthermore, the verifier will have the possibility to influence or improve data quality by providing reasonable improvement recommendations that the operator will need to take into account for future data collection cycles by updating its MMP or explaining why it should not take account of the verifier's recommendations. For example because the operator disagrees with the verifier's recommendations due to unreasonable costs or technical infeasibility. It is the CA responsibility to decide on these issues.

In this context, the verifier should be enabled to follow audit trails back to the point of primary data generation, such as production protocols or fuel invoices. It is obvious that – for the first cycle - there will often be data sources involved which have not been intended to be used for the purpose required by the FAR, and which might not have been subject to quality assurance or control activities. Such data bears a higher verification risk which the verifier must take into account when developing the verification plan for reaching reasonable assurance.

6.4.2 **Materiality**

Materiality is a key element of verification: it is important in two respects:

- The concept itself is relevant when the verifier determines the nature, timing and extent of verification activities: the planning and design of these activities is based on the assessment of the risks of misstatement and non-conformities and any likely material effect they may have on the reported data.
- Secondly, materiality is essential in concluding whether a baseline/new entrant report can be verified as satisfactory. Only reports that are free from material misstatements[36] can be regarded as satisfactory.

Materiality has both a quantitative aspect and a qualitative aspect. The quantitative aspect depends on the size and nature of the impact an error has on the overall reported data, whereas the qualitative aspect is very much determined by factors that can influence the user of the data, i.e. the CA (e.g. particular circumstances, whether it concerns non-compliance, etc.).

For the quantitative aspect the materiality level is important.

For the purposes of FAR baseline data verification Article 23(4) of the AVR specifies the materiality level for certain elements of the data set. The materiality level is ±5% of the reported values for the following individual elements[37]:

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[36] Material misstatement according to Article 3(6) AVR means a misstatement that, in the opinion of the verifier, individually or when aggregated with other misstatements, exceeds the materiality level or could affect the treatment of the operator's or aircraft operator's report by the competent authority;

[37] These individual elements span the following data sets – (a) data covered under annual emissions monitoring (i.e. this will cover fuel and process sub-installation data); and (b), (c), (d) the additional data sets that are specific to the free allocation and benchmark processes. For (a) to have a material error in the total emissions means that there have been errors in the underlying sub-installations which in aggregate are material when converted to CO_2 and compared to the total emissions. Note that a material error during annual emissions verification for an installation with a 2% materiality

a) the installation's total emissions[38], where the data in the baseline data report relates to emissions; or

b) the sum of imports and production of net measurable heat at installation level, if relevant, where the data in the baseline report relates to measurable heat data; or

c) the sum of the amounts of waste gases imported and produced within the installation, if relevant; or

d) the activity level of each relevant product benchmark sub-installation individually.

When an individual misstatement[39] or misstatements when aggregated for one of the aforementioned elements exceed the ±5% materiality level, the misstatement is material for that element. In those cases, the entire reported data set is rejected and the verifier must issue a negative verification opinion statement in relation to the baseline/new entrant data report.

The AVR does not specify a materiality level in relation to elements of the data set other than the ones mentioned in Article 23(4), as outlined above. Where the verifier identifies any other element(s) of the data set as having a significant quantitative error this must be taken into account in the verifier's wider materiality analysis (qualitative assessment) when reaching their conclusions on the reliability of the overall reported data. The verifier needs to consider the potential impact on the user of the reported data if they find a significant error in the data set that is not one of the elements with a mandated materiality threshold.

The elements (a) to (c) relate to the total reported value: i.e. the total emissions, the sum of imports and production of net measurable heat or the sum of the amounts of waste gases imported and produced within the installation. If there are multiple sub-installations that are based on one of these data elements, the individual misstatement or misstatements when aggregated covers the total value for the particular element. This does not mean that an error at sub-installation level cannot lead to a material error. It all depends on the qualitative assessment of materiality.

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level under the Article 23(2) of the AVR would not automatically be material under the FAR if it does not exceed the 5% materiality threshold. However, based on a qualitative assessment it can still be material regardless of whether the 5% materiality threshold under the FAR is exceeded.

[38] Note that the sum of the attributed emissions of all sub-installations is not necessarily equal to the installation's (verified) emissions. For details see e.g. Table 3 in section 6.3 of this document. More details on the determination of attributed emissions are found in sections 4.3 and 7.3 of Guidance Document 5. Note that in some cases the installation's own emissions may be small compared to the allocation (e.g. where the majority of allocation is due to imported heat). In such cases the verifier's materiality assessment will be based on qualitative criteria, including the fact (and size) of the heat imports.

[39] A non-conformity or non-compliance can also be a misstatement if it has an impact on the reported data.

For example:

An installation has a total heat value (production + import) of 100TJ across all its relevant sub-installations; an individual or aggregate error of 5TJ or above in the heat value would be material under point (b) above: 5% of the total production and import of net measurable heat is 5TJ. Any quantitative error equal or above the materiality level is material.

The installations have two heat sub-installation (A) and (B) each with a heat import value of 10TJ:

- An individual error of 2TJ is found in the import value of sub-installation (A); on its own this would not be quantitatively material but would still represent an error of 20% of the imported heat value.
- An individual error of 3.5TJ is found in the import value of in sub-installation (B); on its own this would not be quantitatively material but would still represent an error of 35% of the imported heat value.

However, the aggregate error on the total heat imports to sub-installations (A) and (B) is 5.5TJ; this is above the 5% materiality level for the sum of imports and production of net measurable heat so would result in a material error and therefore a negative verification opinion (not verified).

If, in the case above, the installation had only one heat sub-installation - (B) - with an individual error of 3.5TJ in its imported heat value that is not quantitatively material; the verifier could still determine that the error overall was a material issue if as a result of evaluation of the qualitative aspects of materiality the verifier identifies uncorrected non-compliance and/or non-conformance that impacts the data calculation process and that the verifier considers significant enough to warrant a finding that it is material.

For product benchmarks – element (d) above - any individual misstatement or misstatements when aggregated that exceed 5% of the activity level for the relevant product benchmark sub-installation individually, leads to a negative verification opinion statement.

As mentioned before, when determining materiality of an issue, the materiality level alone is not the only factor when assessing whether or not a misstatement, non-compliance or non-conformity has material effect on the overall reported data. Qualitative aspects have to be considered as well. These aspects can have a material impact on the overall reported data even if a specified materiality level is not exceeded.

Taking account of the qualitative aspect also applies to data types not listed in Article 23(4) e.g. for the quantity of exchangeable electricity, individual CWT values, etc. In such cases the verifier needs to take account of the FAR requirements to determine if a non-compliance or non-conformance has material effect on the data reported for the use to which it will be put. This will need to be established under two different scenarios:

- for the purposes of the free allocation application; and
- for the purposes of the update of the benchmarks.

The key question for assessing qualitative aspects in any case is whether a misstatement, non-conformity or non-compliance (individually or combined) can influence the decision of the user (e.g. the CA for allocation data or the Commission, in the context of benchmark updates). This will depend on the size and nature of misstatements, non-conformities or non-compliance as well as on their particular

circumstances of occurrence. This decision will depend on the professional judgment of the verifier.

Factors that can be relevant in determining whether or not a misstatement, non-conformity or non-compliance has material effect include:

- whether the misstatement, non-conformity or non-compliance can be corrected. For example, if a robust alternate estimation method can be applied to fill a large data gap – and that data gap relates to the allocation of allowances for the installation – the verifier would determine qualitatively that there was no material issue since the alternate methodology is appropriate. If, however, the alternate method was not robust, not properly supported by evidence, or had other failings, the verifier would need to make a qualitative judgement as to whether it was a material issue.
  Other examples include whether estimation methods for attributing heat consumption between sectors exposed to carbon leakage and sectors not exposed are robust and supported by evidence;
- whether the operator refuses to correct the identified misstatement, non-conformity or non-compliance. If an operator refuses to correct an issue, the verifier will first request the operator's reasons for doing so. Article 22(1) of the AVR requires operators to correct any identified misstatement, non-conformity or non-compliance which makes the refusal to correct an outstanding issue without sound justification an important factor that the verifier needs to take into account when assessing the materiality;
- the likelihood of the identified misstatement, non-conformity or non-compliance reoccurring. If the control activities are not sufficient to mitigate inherent risks, calibration is not carried out on a planned and structured basis, important monitoring data are not documented properly, and there is systematic over- or under-estimation of values even if the individual errors are lower than a specified materiality threshold. The likelihood of misstatements or non-conformities reoccurring may be high in those cases, and the situation may therefore be considered a material issue;
- the duration of a misstatement, non-conformity or non-compliance. If the issue has lasted for a long period of time (from one year to another), this is usually a sign that the control system is not working properly or operators are reluctant to correct the issue. This will inform the verifier's assessment of whether this has a material impact on the reported data;
- whether misstatements, non-conformities or non-compliance are the result of an act with or without intent;
- the type of non-compliance with the FAR and whether it affects the allocation or quantity of allowances such as:
    - the system boundaries for sub-installations have not been determined in accordance with the FAR and this affects the reported baseline data;

- the product definition (reflected in reported NACE or PRODCOM code) does not correspond with the actual production process and/or the correct carbon leakage status.
- the installation or part of the installation generates electricity which is not eligible for free allocation of allowances.

Where data contains misstatements, which do not directly affect the allocation because the data is to be reported only for enabling the verifier and CA to carry out plausibility checks, such as annual emissions attributable to product benchmark sub-installations, the verifier may consider this misstatement as non-material for allocation purposes. However, this does not absolve the operator from the requirement to correct the data. The verifier must include such misstatements as findings in the verification report where they are not corrected before issuing the verification report.

6.5 Verification report and opinion statement

Transparency and completeness

The verification report should be completed to a sufficient extent that the CA can understand the main steps of verification carried out; and can obtain a clear picture of the quality of the operator's MMP (if relevant) and the data delivered. Both the CA and the operator should be able to understand the nature of any issues identified. Article 27 (3) of the AVR contains requirements on the content of the verification report (see Section9 (Annex 2)).

The verification report must cover the basis of the verification as well as conclusions on:

- the compliance of the MMP with the FAR (if relevant);
- the quality and reliability of the data used for the free allocation application; and
- the quality and reliability of the data to be used for the update of benchmarks.

Different verification opinions can be stated (these are applicable to any of the situations outlined above):

Verification opinion statement	**Clarification**
The report is verified as satisfactory (positive verification opinion)	This opinion statement is given in two situations: • if there are no outstanding misstatements, non-conformities or non-compliance issues • if there are outstanding misstatements, non-conformities or non-compliance issues but these are not material

Verification opinion statement	Clarification
The report **is not verified as satisfactory** because it contains material misstatements that were not corrected before issuing the verification report (negative verification opinion)	This opinion statement is given if there are material misstatements. This can include non-conformities and non-compliance that have a material impact on the reported data.
The report **is not verified as satisfactory** because the scope of verification is too limited (negative verification opinion)	Limitation of scope can occur if: • data is missing that prevent a verifier from obtaining the evidence required to reduce the verification risk to the level needed to obtain reasonable level of assurance e.g. some or all primary source data is missing and data is only available at an aggregated level; • the MMP does not provide sufficient scope or clarity to conclude on the verification (e.g. parts are not properly described or it is unclear what methodology is applied) and it is not possible to determine this during implementation of the verification plan; • the operator has failed to make sufficient information available to enable the verifier to carry out the verification; • if approval is required for the MMP and that approval has not been granted. See section 2.2 for situations where the MMP does not require approval and where the verifier will do full checks against the FAR.

Verification opinion statement	Clarification
Non-conformities individually or combined with other non-conformities provide insufficient clarity and prevent the verifier from stating with reasonable assurance that the report is free from material misstatements. The report **is not verified as satisfactory** (negative verification opinion)	Usually when non-conformities are found during the verification process, it affects the risk analysis and the planned verification activities. In particular, if such non-conformities increase the risk of misstatements and create uncertainty over the accuracy of the data, the verification activities must be more detailed and further tests and checks will be required to achieve more assurance and confidence in the data. However further testing will not always provide the verifier with sufficient confidence in the data and a negative opinion may be issued. In some cases, non-conformities (individually or combined with other non-conformities) provide too much uncertainty for the verifier to positively state with reasonable assurance that the operator's report is free from material misstatements. This could happen, for example, if the operator does not calibrate measurement equipment, the non-conformity is repeatedly not corrected and/or calibrated measurement results are not available thereby causing the verifier to be uncertain whether the reported data is free from material misstatements.
Where the MMP is not subject to the approval of the CA, non-compliance with the FAR individually or combined with other non-compliances provide insufficient clarity and prevent the verifier from stating with reasonable assurance that the report is free from material misstatements). The report **is not verified as satisfactory** (negative verification opinion)	This, for example, is the case when some elements of the MMP are not scientifically justifiable, are not in line with the FAR (e.g. the 'highest achievable accuracy' data source is not being justifiably used) or when the methodology is lacking in transparency and cannot be determined during implementation of the verification plan. If those non-compliance issues are so severe or lead to so increased uncertainty over the accuracy of the data, it can prevent the verifier from concluding on the reported data with reasonable assurance. Please note that for the first baseline data report to be submitted in 2019, the data relates to 2014-2018. If the MMP is not subject to approval of the CA, the verifier's validation of the MMP focuses on the MMP elements that are related to the 2014-2018 data. Any non-compliance with forward looking elements which are not subject to the verification of the first data baseline report do not have an impact on the verification opinion statement. However, the verifier can make comments on potential non-compliances in the verification report.

Any identified misstatements, non-conformities and non-compliance issues (whether these are material or not) are reported in the verification report, unless they have been corrected by the operator before the verification report is issued.

Possible situations with the MMP

If the verifier has reasonable doubts regarding the quality of minor elements of the methodology, e.g. regarding a particular estimation methodology for substitute data for closing data gaps, these doubts must also be clearly stated in the verification report. If such non-conformities are found to have non-material impact on the reported data, the verification opinion can be positive if the derived data is found to be correct based on the MMP, and if the operator demonstrates that it cannot provide more accurate data.

If the verifier finds that the MMP hints at the use of available data sources which do not qualify as "data of highest achievable accuracy", the verifier will report this fact as a finding in the verification report. Nevertheless, it can continue with further verification tasks, if such non-conformities are found to be non-material. The verification opinion can be positive, if the derived data is found to be correct based on the MMP, and if the operator demonstrates that it cannot provide more accurate data.

In such circumstances the verifier may add comments to the opinion statement to draw the CA's attention to any issues they consider specifically relevant.

Describing the issues in the verification report

All outstanding issues must be described in a clear manner. This will allow the CA and the NAB to assess the verifier's findings more closely. When describing the issues in the verification report, Article 27(4) AVR requires the verifier to include in the description:

a) the size and nature of any misstatement, non-conformity or non-compliance with the FAR;

b) whether a misstatement, non-conformity or non-compliance has material effect on the reported data or not;

c) to which element of the operator's report a misstatement, or to what element of the MMP a non-conformity, relates;

d) to which Article(s) of the FAR a non-compliance relates.

In addition to stating findings in the verification report, the verifier may add comments to the opinion statement to draw the CA's attention to any issues they consider specifically relevant, for example, significant quantification errors in elements of the data set to which the materiality level does not apply under Article 23(4) of the AVR. Please note that for such significant errors the fact that a materiality level is not specified does not necessarily mean that the error is not material. This can still be the case based on the qualitative assessment of materiality (please see section 6.4.2).

6.6 Dealing with negative verification opinions

Member States can only accept free allocation data submitted to the CA that has been verified as satisfactory by a verifier, in accordance with the AVR. When data gaps are due to exceptional and/or unforeseeable circumstances that could not have been avoided even if all due care had been exercised and these circumstances are beyond the control of the operator, the CA may decide to determine the historical activity levels even in the event of a negative verification opinion statement (Article 15(2) of the FAR).

7 Special topics for FAR Baseline Data

This Chapter explains some of the specific issues that are relevant in the verification of baseline data reports and new entrant data reports. Please note that this is not a complete list of issues.

7.1 Principles of the FAR

Verifiers should understand the underlying principles of the FAR calculations. The most important ones are listed below. More details about these concepts can be obtained from the guidance papers mentioned in Annex II.

7.1.1 **Assessing the boundaries of the sub-installations**

The verifier will check the boundaries of the sub-installation and of the installation itself to ensure that the calculations match to the physical reality in total with no overlaps or omissions. For one installation multiple sub-installations can apply.

Verifiers should therefore be aware of the definition of sub-installation for the different benchmarks (in particular product benchmarks) as well as the division between sub-installations if more than one sub-installation applies to one installation. Other key concepts include:

- definition of an electricity generator[40]. The export or consumption of heat used for electricity generation is not eligible for free allocation the verifier will therefore double check if there is electricity generation on an installation and what the boundaries of that generation are.
- definitions of measurable heat, other non-measurable heat and district heating, and the principles of the treatment of cross-boundary heat flows. Heat benchmark sub-installations can often be complex. Verifiers are advised to take particular note of Guidance Document 6.
- definition of the process emission sub-installation, including principles related to waste gases and applicable correction to the allocation calculation. Corrections for waste gases are also relevant for the attributed emissions of

[40] Guidance paper to identify electricity generators: https://ec.europa.eu/clima/sites/clima/files/ets/docs/guidance_electricity_generators_en.pdf

product benchmark sub-installations in relation to the update of benchmark values. The definition of process emission sub-installation and the concepts of waste gases have been clarified for the fourth trading period. Guidance document 8 provides more details.

More explanation is provided in the FAR guidance documents.

Furthermore, verifiers have to check the completeness of source streams and emission sources that are listed in the MMP. For this, verifiers will do similar checks as are done for annual emission verification. For more information please see KGN II.1 on scope of verification.

7.1.2 Most accurate available data sources

As explained in section 2.3 the operator needs to use data sources that achieve the highest possible accuracy. Different scenarios can be distinguished.

For historic data that will be used for baseline period 2014-2018, the operator will be using data that is already in their records. In principle, the operator should be using the same data sources as are listed in the installation's annual emissions MP – these are considered the highest accuracy data for quantification of fuels and materials and for determining the properties of fuels and materials.

For example, if the operator currently does not have measurement instruments and calculates a proxy for determining net amounts of measurable heat in accordance with method 3 in section 7.2 of the Annex to the FAR, it should be stated in the MMP that this is currently the highest level of accuracy that can be achieved by the operator. Unless there is clear evidence to the contrary, the verifier can accept this methodology for baseline data determination for the first cycle. Depending on the situation and data set, the operator should provide evidence that no other (more accurate) data sources exist, or other appropriate reasoning, such as a more accurate data source's amount of data gaps, etc.

However, verifiers need to evaluate the proposed baseline report data source against the data sources used for annual emissions monitoring (where relevant) and if the proposed source is different from that specified in the annual MP justification is required from the operator as to why this is reasonable and meets the FAR definition of highest achievable accuracy. For data being collected over time building up to the next allocation process in 2024 and future cycles, the MMP will specify what approach the operator intends to use to collect that data. This specification will be subject to the CA's approval before it is applied and therefore the verifier does not need to evaluate the data sources further. If, however, the verifier in the course of its work identifies something that contradicts the specification stated for the forward-looking data gathering, they may report this in their findings so as to draw the CA's attention to it.

If the MMP is approved by the CA, the MMP submitted to the CA for approval will have included, where relevant, justifications for the applied data sources. If the CA accepts justifications related to the technical feasibility or unreasonable costs associated with implementing new measurement systems, the approved MMP will take this into account and the verifier can accept the approved data sources as being of highest achievable accuracy. The verifier will then take the decisions of the CA on

the MMP as a starting point for its work but can still report non-compliance issues or recommendations for improvement if it considers that the requirements on most accurate data sources are not complied with or it considers that the operator can improve on the selection of most accurate data sources.

7.1.3 **Unreasonable costs and technical infeasibility**

When other data sources are used because of technical infeasibility or unreasonable costs, the verifier will do the same checks as they would do for annual emissions verification on unreasonable costs and technical infeasibility. With respect to unreasonable costs, verifiers assess the calculation of unreasonable costs as well as the underlying evidence for the costs that are used in the calculation to determine if the justifications and evidence are complete and reasonable.

With respect to technical infeasibility the verifier will gather verification evidence of what equipment was in place and available at the time the data was collected in order to decide whether the evidence presented by the operator in the MMP of technical infeasibility is complete and reasonable.

7.1.4 **Simplified uncertainty assessment**

An operator can use other data sources provided it demonstrates to the satisfaction of the CA that the associated level of accuracy of the data source it proposes is equivalent to, or better than, the level of accuracy of the most accurate data sources in the hierarchy given in section 4 of Annex VII of the FAR. For that purpose, the operator must compile a simplified uncertainty assessment identifying major sources of uncertainty and estimating their associated levels of uncertainty. This uncertainty assessment does not have the same rigour[41] as that required for annual emissions reporting, but should be robust and supported by logical evidence and justifications.

When such a simplified uncertainty assessment is made the verifier should check the validity of information that was used for this uncertainty assessment. The verifier needs to check evidence that all major sources of uncertainty have been identified – across the entire data flow for generating, collecting and calculating relevant data points - and the basis on which an estimation of uncertainty for each is derived.

Verifier will cross check that information with their own evaluation of the data flow and the operator's risk assessment. Verifiers will also ask the operator to justify inclusion/ exclusion of sources of uncertainty from the assessment and to provide reasonable evidence for how the operator has decided the level of uncertainty.

7.1.5 **Assessing application of product benchmarks**

As explained in section 6.3 the verifier will carry out checks on the correct application of product benchmarks and other benchmark update data, including:

- Whether data gaps or double counting occurs

[41] Nor does it need to have the same approach and methodology, although if there is an existing approach applied to instruments etc. under annual reporting of emissions operators would need to supply the verifier with a reasonable justification as to why this has not been applied to relevant FAR data collection activities.

- Correct application of product definitions
- Correct attribution of activity levels for the fall-back allocation approaches (heat, district heating, fuel and process emissions sub-installations) according to the carbon leakage status of the products linked to those sub-installations and to the NACE/PRODCOM codes of these products.
- historical activity levels (based on mean values of the baseline period and the relevant calculation methods)

The verifier will apply analytical procedures and data verification to assess these elements and should therefore be aware of how these concepts can be evaluated (see also section 6.3). Verifiers need to understand the FAR guidance documents.

7.1.6 **Product definitions and production data**

A key issue for FAR baseline data verification is the checking of production data, which forms the basis for calculating Historic Activity Levels (HALs) for product benchmarks to determine the preliminary number of allowances allocated free of charge. This covers two aspects:

a) Qualitative checks: Has the operator chosen the correct benchmark? In other words: Do the products fall under the relevant definition of Annex I of the FAR[42]?

b) Annual quantity of products.

Product classification

For answering point (a), the verifier will need an understanding of the relevant product definitions in the FAR and also of the applicable NACE and PRODCOM classifications. In case of dispute about product classifications, the verifier should seek clarification from the national statistical office in the Member State of the installation.

For determining the quantitative production data (including heat sales data), the operator will usually be able to provide data from its financial accounting systems, such as delivery notes and invoices, and/or production accounting protocols. Often the data provided will be stored in electronic database systems and may be subject to audit by the operator's financial auditors. The verifier should consider the following issues:

- For HAL data, the amount of saleable product produced is relevant in most cases. If sales data are used, they must be corrected for annual stock changes in order to determine the production data. Equally, if the operator's financial accounting year doesn't coincide with the calendar reporting year, appropriate adjustments have to be made.

[42] Definitions are further elaborated in guidance document 9.

Considering results from financial or other audits

- The verifier may take into account the results of external independent audits performed for the purpose of tax or customs authorities, or in context of financial regulations. However, it is within the responsibility of the verifier to assess if relying on such audit opinions can be justified with a view to the scope and required level of assurance for FAR baseline data verification. If needed, the verifier will have to carry out additional verification activities.

7.1.7 **Carbon leakage**

Verifiers should be aware of the risk of significant exposure to carbon leakage of different sectors, and its impact on allocation rules. If a sector or sub-sector is subject to a risk of significant exposure to carbon leakage, they are listed on the Carbon Leakage List (CLL) and sub-installations serving listed sectors or sub-sectors are eligible for 100% free allocation. The Commission has adopted a new CLL for 2021 - 2030, identifying those sectors and activities eligible for 100% free allocation under the new carbon leakage rules for Phase 4. In principle, the eligibility assessment of (sub-) sectors inclusion in the list is based on their NACE classification codes[43], though for a number of sub-sectors it is based on the more disaggregated PRODCOM classification codes. Verifiers should confirm that the NACE / PRODCOM codes declared in the baseline report are consistent with other evidence of such declarations by the operator; or that there is a justifiable reason for a code declared to have changed. Verifiers needs to be aware of the potential for distortion of free allocation levels by use of incorrect codes in baseline data reports and that some sectors have been split such that some sub-sectors (with more disaggregated[44] codes) are on the CLL and some are not. Verifiers need to carefully check the CLL and make sure that the operators use the correct NACE/ PRODCOM code in the baseline/new entry data report. More information on the impact of carbon leakage is provided in Guidance Document 2.

7.1.8 **Changes to allocation**

There can be situations where there are changes in the operation of installations that will have an impact on the initial allocation: e.g. known capacity changes that will impact production levels soon after the change. The verifier should be aware of such changes and check what has changed in the operations of the installation during the baseline period. Going forwards from the start of Phase 4, an installation's allocation will only be changed as a result of changes notified in the annual activity level report.

7.1.9 **Mergers/splits**

Article 25 of the FAR requires operators of new installations resulting from a merger or split to provide documentation about the ownership change to the CA. When there has been a merger or split, the verifier has to review that documentation and

[43]The CLL is based on NACE revision 2, with the corresponding 2010 for PRODCOM. See Section 4.1 of Guidance Document 2 for more details.

[44] More disaggregated means that more digits of the PRODCOM codes are relevant.

check whether the baseline data report of such an installation is accurate, how the installation was merged or split and what impact this has had on the sub-installations. This will be important information to take into account in the assessment on whether the allocation data is accurate.

7.2 Special competences required

As explained in section 5.2, EU ETS auditors and lead auditor should have knowledge of the specific FAR rules and guidance as well as knowledge and experience on monitoring and reporting aspects in relation to allocation data. Furthermore, the team as a whole should include at least one person that has the technical competence and understanding required to assess the specific technical aspects regarding the monitoring, reporting and collection of data. This will allow the verifier to understand the installation and sub-installations applicable and check the application of the monitoring methodology and the implementation of the MMP. Otherwise the verifier will not be able to assess the material correctness of the data and the correct implementation of the monitoring plan. The table below provides an indication which technical competence and understanding should apply to assess the specific technical monitoring and reporting aspects.

Elements of technical expertise and competence	**Examples of knowledge and skills related to technical competence**
Assessing aspects of the MMP	Being able to assess and understand: • how the MMP is implemented in the installation; • how to check the baseline data report against the MMP; • how to analyse information and data to confirm whether the MMP is still appropriate and is being implemented; • how to check the MMP against the FAR if the MMP is not approved and how to deal with aspects of unreasonable costs/technical infeasibility if there is no approval of these aspects by the CA.
Specific activity and technology	• Being able to identify and understand which key operations impact the operator's allocation data; • Having general knowledge of the technologies applicable to the industry sector in which the installation operates.
Relevant boundaries of the sub-installation and emissions sources/source streams	Being able to understand and have knowledge of: • concepts related to process emission sub-installations, waste gases and correcting for the heat content therein; safety flaring etc.; • boundaries of sub-installations; • definition of product benchmarks and system boundaries; • exchangeability of fuel and electricity; • definition of fall-back sub-installations; • attribution of data to relevant sub-installations;

Elements of technical expertise and competence	Examples of knowledge and skills related to technical competence
	• assessing completeness of source streams and emission sources; • production inputs and outputs relevant to GHG emissions.
Quantification, monitoring and reporting including relevant technical and sector issues	Being able to understand and have knowledge of techniques relevant to monitoring and reporting which requires skills such as: • parameters for baseline data collection; • ability to understand the concept of exchangeability of electricity and heat; • knowledge on special topics such as CWT factors and how to determine related activity levels, and other special benchmarks; • understanding methods for determining net heat flows eligible for allocation under the fall-back sub-installations; for determining proxy data for measurable heat; and for calculation of emissions related to heat in CHP installations; • how to assess the most accurate data sources, and how to assess unreasonable costs and technical infeasibility; • how to assess whether methods for completing data gaps are conservative and do not lead to material misstatements.
Knowledge related to the operator's organisation and quality assurance	• operator's specific data flow and risk assessment; • operator's specific control activities in relation to data flow; • overall organisation with respect to monitoring and reporting, as well as the control environment in which the operator's accounting system functions; • procedures mentioned in the MRR; e.g. procedures for data flow activities and control activities; and for managing responsibilities for monitoring and reporting within an installation.
Knowledge related to verification agreements	• understanding contracts or other agreements with the operator to manage conflicts that could impact the verification (e.g. time allocation in contracts with the operator). • understanding how to apply the concept of materiality to baseline data, and in particular for aspects of the data sets that have no defined materiality threshold

7.3 Dealing with FAR related data gaps

Data gaps can be identified by the verifier when carrying out analytical tests and detailed data verification, or by the operator itself. Figure 3 below shows what the verifier is required to check in the case of data gaps.

A data gap occurring several times over a longer period of time may show that the internal control activities have not been functioning correctly. The verifier will therefore assess the frequency of data gaps occurring and the control activities

implemented to avoid such data gaps. The verifier assesses whether internal control activities are effective[45] (e.g. whether IT systems automatically transferring data are secure and functioning properly, whether the operator has built in manual controls to ensure that no data gaps occur and whether regular data validation is occurring to pick up issues before they become data gaps).

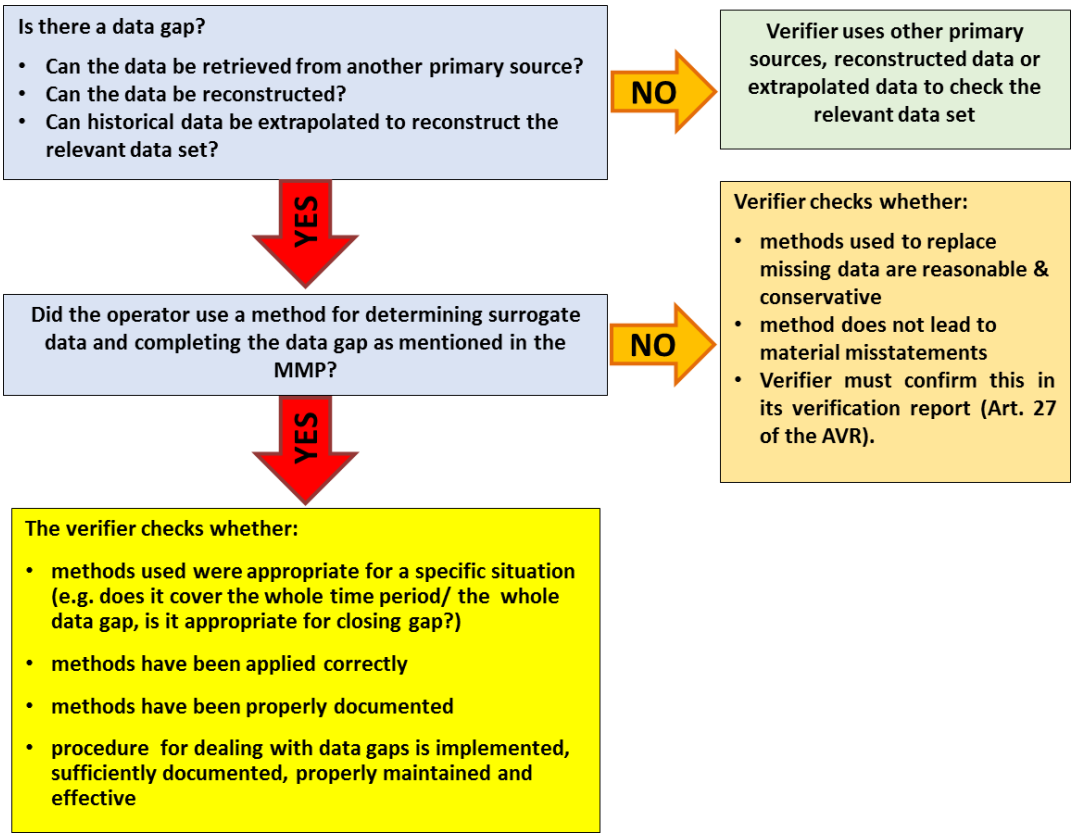


Figure 3 - Dealing with Data Gaps

[45] The verifier should be aware that some data to be reported in 2019 would not have been intended for baseline data/benchmark purposes when it was originally generated. The verifier should assess the effectiveness of the control activities in this context, i.e. the controls in place at the time it was generated for the purposes for which it was generated.

8 Annex 1 - The Verification Report

8.1 Main elements of the verification report

The verification report relates to the reported baseline data in its entirety; this is given in the Commissions Reporting Template, as summarised in the 'Summary' page[46] for the allocation dataset and on the relevant Benchmark page(s)[47] for the benchmark update data set (if relevant to the installation).

The main requirements on the content of the verification report are listed in Article 27(3) of the AVR. The content of the verification report related to baseline reports is similar to the annual emission verification report. However, there are some elements that are specific to baseline reports such as confirmation that the verifier has checked the MMP and that this plan is compliant with the FAR (for situations where the verifier has validated the MMP).

Verification reports will include the information listed below:

- Related to the verifier:
    - Name and address of the verifier
    - Name of the EU ETS lead auditor, auditor(s), technical expert(s) and independent reviewer
    - Name, and signature of the verifier's authorised person; and the date of the signature
    - The date(s) and duration of site visit(s) and who conducted them
- Related to the operator and installation:
    - Name and address of the installation and the obligated operator
    - Unique ID of the installation
    - Contact person responsible for the FAR baseline data report at the installation (name and address, telephone number and email address)
- Related to the operator's report:
    - A reference to the name and date of the final verified FAR data report (if the verification report is not embedded within the FAR baseline data report itself)
    - The baseline period being verified [2014 to 2018, or 2019-2023]
    - Reference to the relevant pages of the baseline report that contain data being verified (i.e. the Summary Page and the Product

[46] K_Summary of the reporting template

[47] F_ProductBM and/or G_Fall-back of the reporting template

benchmark and/or Fall-back Benchmark pages, if relevant, as these pages contain the data for the update of the product benchmarks)

- The basis of the verification opinion including :
    - objectives, scope and responsibilities of the different parties [operator CA and verifier]
    - the criteria used for verification, including:
        - the MMP (with validity period and version information), and whether it was already approved by the CA
        - the FAR and associated guidance
        - the AVR and associated guidance and standards
    - the scope of verification
- where the MMP is not subject to approval by the CA confirmation that the MMP is compliant with the FAR.
- Outstanding issues identified during the verification
    - description of any identified misstatements and non-conformities that were not corrected before the verification report is issued;
    - description of any non-compliances with the FAR that were identified during the verification;
    - confirmation that the method(s) used to fill any data gaps are reasonable and based on scientific/engineering principles and whether the method(s) lead to a material misstatement or not;
    - any recommendations for improvement (if relevant).

in order to make clear what underpins the conclusion expressed in the verification opinion statement.

The Commission has developed a template for the verification report and opinion statement that includes all the required elements.

9 Annex 2 - List of available guidance papers

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.
- 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 (EC).
- 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 Measures[48], 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

[48] Article 11 of Directive 2003/87/EC

(c) Provide guidance on the requirements of the MMP 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 Directive[49] (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;
- Guidance paper to identify electricity generators[50].

In addition, the Commission has provided an extensive suite of guidance material in relation to MRVA under the EU ETS[51]. The user of the current document is assumed to be familiar with at least the basic principles of MRVA.

In addition, the Commission has provided an extensive suite of guidance material in relation to MRVA under the EU ETS[52]. The user of the current document is assumed

[49] https://ec.europa.eu/clima/sites/clima/files/ets/docs/guidance_interpretation_en.pdf

[50] https://ec.europa.eu/clima/sites/clima/files/ets/docs/guidance_electricity_generators_en.pdf

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

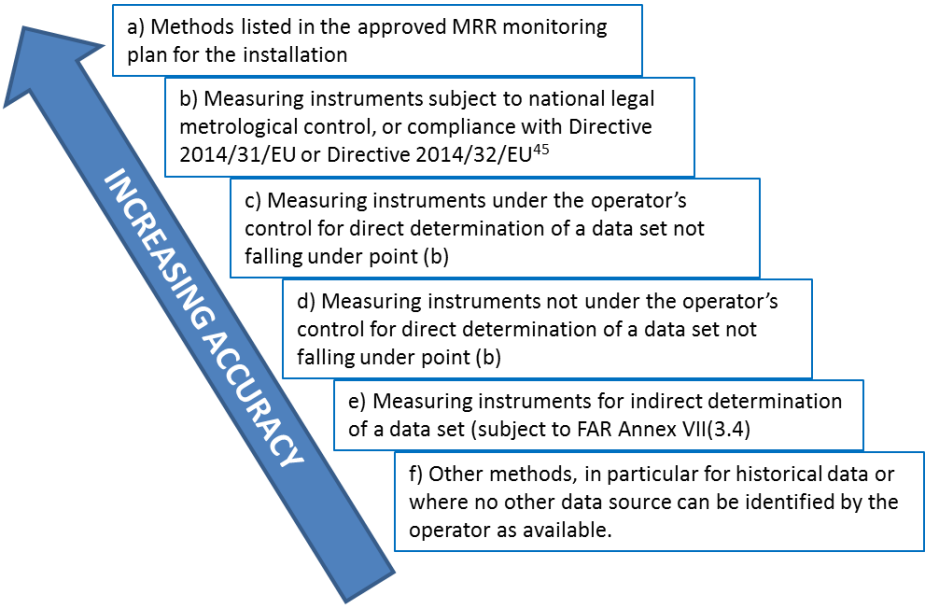
[52] https://ec.europa.eu/clima/policies/ets/monitoring_en#tab-0-1 – see in particular the section “Quick guides”

to be familiar with at least the basic principles of MRVA. In particular the following AVR guidance material is relevant:

- EGD I – AVR explanatory guidance document No. 1
- KGN II.1 – AVR Key guidance note II.1 on scope of verification
- KGN II.2 – AVR Key guidance note II.2 on risk analysis
- KGN II.3 – AVR Key guidance note II.3 on process analysis
- KGN II.4 – AVR Key guidance note II.4 on sampling
- KGN II.5 – AVR Key guidance note II.5 on site visits
- KGN II.7 – AVR Key guidance note II.7 on competence
- KGN II.8 – AVR Key guidance note II.8 on the relation between AVR and EN ISO 14065
- KGN II.9 – AVR Key guidance note II.9 on the relation between AVR and EN ISO/IEC 17011
- KGN II.10 – AVR Key guidance note II.10 on information exchange

10 Annex 3 – Hierarchy of accuracy for Data sources

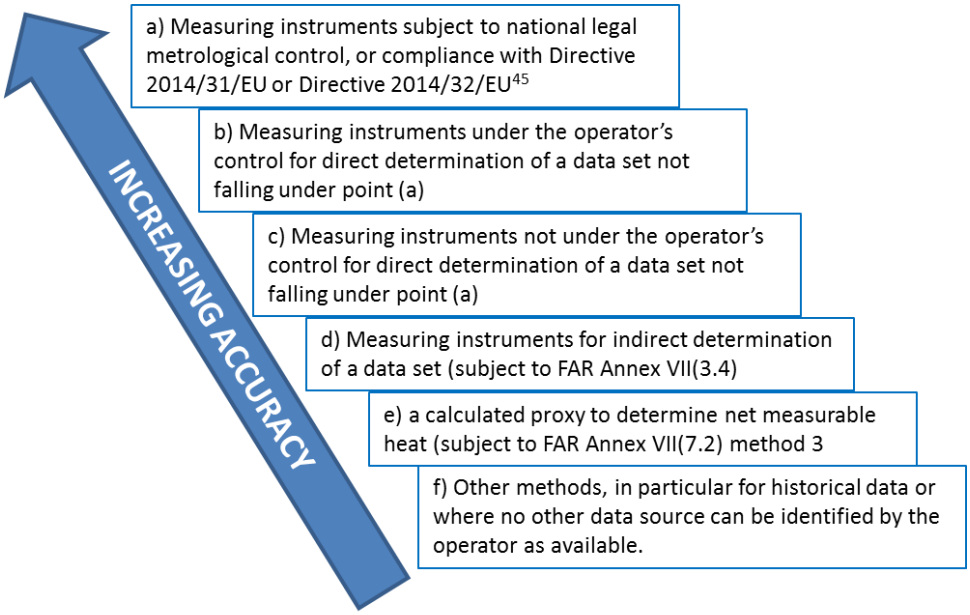
The hierarchies for highest achievable data sources specified by Annex VII(4) of the FAR are shown in the following Figures.



Only the data sources listed in Figure 4 points (a) and (b) are considered to represent the most accurate data sources while the data source referred to in point (a) shall be used to the extent that it covers the respective data set. The data sources referred to in points (c) to (f) of Figure 4 are considered less accurate in the descending hierarchical order from point (c) to point (f).

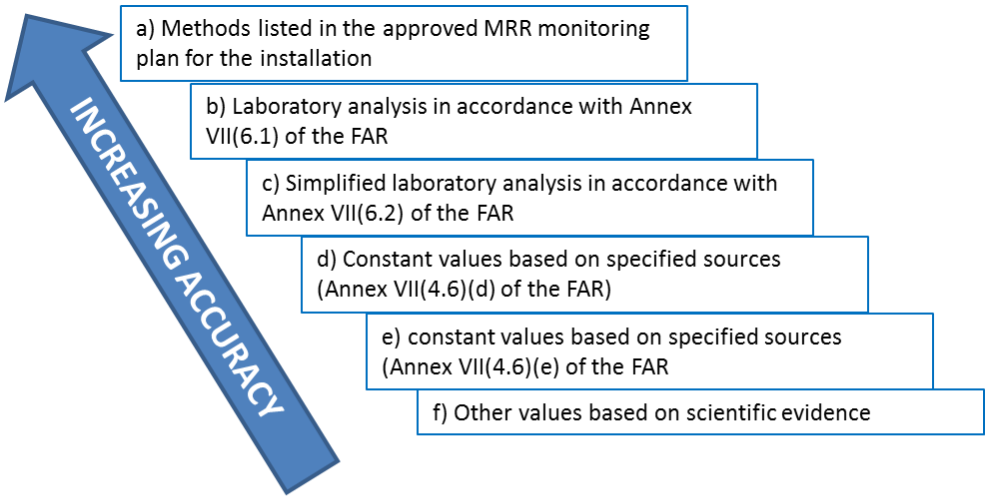
Figure 4 - Data sources for quantification of materials and fuels (FAR Annex VII (4.4)

[53] Directive 2014/31/EU on the harmonisation of the laws of the Member States relating to the making available on the market of non-automatic weighing instruments Directive 2014/32/EU on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments



Only the data source referred to in Figure 5 point (a) is considered to represent the most accurate data source. The data sources referred to in Figure 5 points (c) to (f) are considered less accurate in the descending hierarchical order from point (b) to point (f). More requirements are given in section 4.5 of Annex VII of the FAR

Figure 5 - Data sources for quantification of energy flows (FAR Annex VII (4.5)



Only the data sources referred to in Figure 6 points (a) and (b) are considered to represent the most accurate data sources, while data source referred to in Figure 6 point (a) shall be used to the extent that it covers the respective data set. Data sources referred to in Figure 6 points (c) to (e) are considered less accurate in the descending hierarchical order from point (c) to point (e).

Figure 6 - Data sources for properties of materials (FAR Annex VII (4.6)

11 Annex 4 – Example 'Management Declaration'

< Insert name and job title of main operator contact point>

< Insert address of installation/ company>

< insert date>

< insert : EU-ETS Permit Number>

Dear Sirs

Verification of baseline data for EU ETS free allocation for Phase #

We confirm to the best of our knowledge and belief, and having made appropriate enquiries, the following representations given to [*Verification Body name*] in connection with your verification of this installation's free allocation data baseline report.

1. We confirm that all relevant sub-installations have been accounted for and aggregate data apportioned without omissions or double counting,,, with the exception of :

   - *<insert any exceptions to the above statement (with explanation as to why the exception occurs) or delete as appropriate >*

2. We confirm that the information in the submitted Baseline Report corresponds to the related information in the monitoring methodology plan for this installation (insert date of relevant MMPs), with the exception of :

   - *<insert any exceptions to the above statement (with explanation as to why the exception occurs) or delete as appropriate >*

3. We confirm that we have used the available data of highest accuracy in accordance with FAR Annex VII, section 4 : *[insert relevant section numbers e.g. 4.4(a), 4.5(a),4.6(a) etc.]*, with the exception of :

   - *<insert any exceptions to the above statement (with justification as to why the exception is allowed – supporting evidence to demonstrate this will be required) or delete as appropriate>*

4. We confirm that the NACE/PRODCOM codes declared in the baseline report are consistent with the codes that we use for other purposes, with the exception of:

   - *<insert any exceptions to the above statement (with justification as to why the exception is allowed – supporting evidence will be required) or delete as appropriate>*

5. We confirm that the evidence pack supplied to [*Verification Body name*] is as complete as possible for the installation taking into account the FAR rules and guidance provided by the European Commission and the MS Competent Authority; with the exception of :

   - *<insert any exceptions to the above statement (with explanation as to why the exception occurs) or delete as appropriate >*

6. We confirm that we are not aware of any actual or possible instances of non-compliance with the rules of the above scheme; with the exception of :

   - *<insert any exceptions to the above statement (with explanation as to why the exception occurs) or delete as appropriate >*

7. We acknowledge our responsibilities for the monitoring and internal control systems that are designed to prevent and detect error or misstatement of EU ETS baseline data.

8. We have disclosed to [*Verification Body name*] the results of our risk assessment that

assesses whether our baseline data report is free of material misstatements that may arise as a result of error, omission or lack of internal control.

9. We confirm that the above representations are made on the basis of enquiries of*[insert installation/company name]* management and staff (and where appropriate, inspection of evidence) sufficient to satisfy ourselves that we can properly make each of the above representations to you.

10. We confirm that the persons listed below are authorised to make representations on behalf of the installation and the Operator.

Signed on behalf of *[insert installation/company name]*

1. Installation EU ETS Technical Responsible Authority:

Signature:	
Name [CAPITALS]	
Position:	
Date:	

2. Independent review of EU ETS Data Flow Activities by:

Signature:	
Name [CAPITALS]	
Position:	
Date:	

3 Senior Management Sign off:

Signature:	
Name [CAPITALS]	
Position:	
Date:	

Note: This Declaration shall be signed by :

1) The person responsible for the collation of baseline data and overall supervision of the EU ETS data and control environment;

2) One person who has reviewed the data but has not been involved in the determination or recording of EU ETS baseline data; and

3) An appropriate Member of the Senior Management Team at the Installation such as but not limited to the Managing Director, Site Manager, Company Secretary or Executive Director.

12 Annex 5 – Comparison with 2011 Guidance Document 4

The table below shows how the sections of the 2011 version of Guidance Document 4 relate 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 have significantly changed as a result of new rules in the revised ETS Directive, the revised AVR, and the FAR. '-' indicates sections that are new in the 2019 version; and * indicates that there is a significant change in the 2019 version as compared to the 2011 version.

Content	**Section in**		**Comments**
	2011 GD4	**2019 GD4**	
Introduction	1	1	
Status of the guidance document	1.1	1.1	
Legal Requirements	1.2	1.2	* Explains the changes in legislation since the 2011 data collection exercise
Scope of the guidance document	-	1.3	Explains what is covered by the guidance document
Information available	1.3	1.4	Please note that all guidance documents have been updated as a result of new rules. This is reflected in this section.
Outline of the data collection process	1.4		Deleted in 2019 version
Verification of NIMS baseline data reports	-	2	New section explaining the requirements for the operator's submission of the NIMS baseline data reports and information to be provided by the operator

Content	Section in		Comments
	2011 GD4	2019 GD4	
NIMs baseline report	-	2.1	New section explaining what needs to be in the report and the data the verifier expresses a conclusion on
Role of the Monitoring Methodology Plan	-	2.2	New section explaining the MMP and the need for validation by the verifier against the FAR rules if the MMP is not subject to the CA's approval
Implications for achieving data of 'highest achievable accuracy'	-	2.3	New section explaining the requirements for 'highest achievable accuracy' of the primary data generation by the operator and what verifiers need to consider in this context.
Recognition of verifiers	2	5	Deleted in 2019 version and replaced by new section on accreditation of verifiers (see below) - the whole process of verifier recognition for FAR has been brought under the AVR:2018 so this section no longer exists in the 2019 version of GD4 and has been replaced by section 5
Accreditation or other approaches to recognition	2.1	5	
Verification of new entrants data	-	3	New section explaining what the operator is required to do to apply for free allocation for New Entrants. Note the definition of New Entrant has changed since the 2011 version of guidance. Verification requirements are the same as outlined in Section 5 of the updated GD4 with the exception that validation of the MMP will not apply.
Verification of annual activity data	-	4	New section. Currently blank and awaiting the rules on AAD reporting
Accreditation of verifiers	-	5	New section on accreditation under the AVR:2018
Accreditation	-	5.1	New section explaining that the AVR:2018 rules apply to FAR accreditation. Verifier's that hold Scope 98 are accredited to conduct FAR verification subject to

Content	Section in		Comments
	2011 GD4	2019 GD4	
			holding the relevant sector accreditation scopes and demonstrating to their NAB that they have the competences in the new FAR rules and associated guidance
Competence requirements for verifiers	2.2	5.2	*This section has been updated to reflect the changes in the rules and guidance since the 2011 data collection and outlines examples of the specific competence requirements required for FAR verification that supplement the requirements on competence in the AVR. It also references to section 7.2 for more detailed examples on verifier's competence in relation to the FAR
Impartiality requirements for verifiers	-	5.3	New section highlighting that AVR impartiality requirements apply to FAR verification.
Information exchange requirements	-	5.4	New section highlighting that AVR information exchange requirements apply to FAR verification
The verification process	3	6	
General approach	3.1	6.1	* Updated to reflect the fact that free allocation data verification has been brought under the AVR:2018 regime. The section reminds verifiers that their work is being done at sub-installation level, and in the case of product benchmarks and heat the data will be different to that covered under annual installation level emissions verification.
Pre-contract obligations	-	6.1.1	New section reflecting the requirements of AVR:2018 in relation to evaluating whether the verifier can take on a specific verification contract; and providing examples of the documents the operator neds to provide to support this evaluation.

Content	Section in		Comments
	2011 GD4	2019 GD4	
Strategic analysis	-	6.1.2	New section reflecting the requirements of AVR:2018 in relation to preparatory work for a FAR verification; and providing examples of the information and documents the operator needs to provide to support this analysis for FAR verifications. It reminds verifiers of the need to look at the complexity of sub-installations and the apportionment of aggregated data to them. Where the verifier has conducted prior work to evaluate data accounting processes and inspect instruments etc. this section explains how the analysis should consider the extent to which this evidence can be relied upon in FAR verifications.
Risk analysis	-	6.1.3	New section reflecting the requirements of AVR:2018 in relation to preparatory work for a FAR verification.
Verification plan	-	6.1.4	New section reflecting the requirements of AVR:2018 in relation to planning for a FAR verification
Process analysis (detailed verification)	-	6.1.5	New section reflecting the requirements of AVR:2018 in relation to conducting detailed verification. Specific FAR checks are outlined; and reference is made to relevant KGNs from the AVR guidance set.
Site visits	-	6.1.6	New section reflecting the requirements of AVR:2018 in relation to site visits. AVR requires a visit to the site and/or other locations for FAR verifications at one or more times as determined by the verifier's risk assessment.
Addressing misstatements, non-conformities and non-	-	6.1.7	New section outlining obligations of verifiers and operators where non-compliances, non-conformities and/or misstatements are identified (these issues are defined) – including obligations to correct.

Content	Section in		Comments
	2011 GD4	2019 GD4	
compliance			
Concluding on the findings of verification	-	6.1.8	New section reflecting the requirements of AVR:2018 in relation to the verifier's conclusions; the need for sufficient evidence for evaluation; and good practice in obtaining a 'Management Declaration' from the operator's senior management that they have provided all the information and evidence the verifier requires to complete their work. The section also covers independent technical review and internal verification documentation.
Scope of verification	3.2	6.2	* updated section reflecting the requirements of AVR:2018 and outlining what an individual verification covers, the level of assurance and the principles that apply to verification of allocation data. The section outlines how the verifier checks the MMP when it is subject to CA approval and when it is not subject to CA approval.
Data assessment	-	6.3	New section outlining examples of the specific checks required on FAR data and the MMP; and the obligation for the operator to correct data and update the MMP, as required. The approach to estimating and verifying data gaps is outlined. In particular an explanation is provided of what 'conservative' means in the context of FAR data (as opposed to its definition for annual emissions accounting)
Assessment of the Methodology Report's Quality	3.3		Deleted in 2019 version
Methodological choices	3.5	6.4	

Content	Section in		Comments
	2011 GD4	2019 GD4	
Level of assurance	3.5.1	6.4.1	* states the required level of assurance and highlights the challenge for the 2019 data collection cycle due to the retrospective character of historical data and the fact that this data will not necessarily have been collected for the purpose that the FAR now requires. Reminds verifiers that they can provide improvement recommendations to help ensure that future cycles of data collection are robust
Materiality	3.5.2	6.4.2	* Explains the nature of materiality in the two contexts that it is applied (for verifier planning and for reaching a conclusion). States the specific quantitative thresholds that are defined in AVR:2018; and explains how other parts of the data set (without defined thresholds) should be evaluated along with qualitative materiality considerations. It also explains what other factors the verifier should take into account in the materiality analysis (qualitative assessment).
Verification report and opinion statement	3.6	6.5	* outlines the requirements for the verification report and opinion statement (VOS); provides the different opinion options that are available to verifiers; and explains circumstances when verifiers must report identified issues in the VOS, including how they must be described.
Dealing with negative verification opinions	3.4	6.6	* highlights that free allocation can only be given to Operators who submit data that is verified as satisfactory.
Special topics for NIMS baseline data	4	7	
Principles of the CIMs	4.1	7.1	
Assessing the	-	7.1.1	* outlines considerations for the evaluation of boundaries of sub-installations and

Content	Section in		Comments
	2011 GD4	2019 GD4	
boundaries of the sub-installations			associated definitions (such as electricity generator, measurable and non-measurable heat, process emission sub-installations, waste gases etc); and checking of completeness of emissions sources and source streams. Reminds verifiers to be aware of the need to confirm there are no overlaps or omissions in relation to the installation as a whole
Most accurate available data sources	-	7.1.2	New section outlining the FAR requirements for operators to demonstrate that their data is of the 'highest achievable accuracy'; and explains what this means for the verifier's work in the context of historical emissions and going forward into the next cycles of data collection for determination of free allocation.
Unreasonable costs and technical infeasibility	-	7.1.3	New section on how the verifiers assesses unreasonable costs or technical infeasibility if the operator has claimed these when derogating from the highest achievable accuracy options (listed in Annex 3).
Simplified uncertainty assessment	-	7.1.4	New section outlining the FAR's use of uncertainty assessment for the operator to justify using data sources other than those at the top of the hierarchies given in Annex 3.
Assessing application of product benchmarks	-	7.1.5	New section outlining examples of specific checks the verifier must make on the data for product benchmarks
Product definitions and production data	-	7.1.6	New section outlining two specific checks the verifier must make on the selection of product benchmark(s) by the operator, including if they are the correct benchmark when compared to the FAR Annex I definition and the quantity of product made. Specific reference is made to the need for the verifier to understand FAR product definitions, and NACE and PRODCOM codes; and the need to be aware of

Content	Section in		Comments
	2011 GD4	2019 GD4	
			adjustment requirements where sources of product data are not collected on the same time line as for FAR reporting.
Carbon leakage	-	7.1.7	New section outlining the obligation on verifiers to be aware of the risk of carbon leakage, the updated Carbon Leakage List; and the potential for operators to 'distort the system' by the incorrect selection of codes. Reference is made to GN2.
Changes to allocation	-	7.1.8	New section outlining circumstances when changes in the operation of an installation can affect the allocation of free allowances. Reference is made to the Annual Activity Level Report for which guidance will be given in section 4 once the rules are finalised.
Mergers/splits	-	7.1.9	New section outlining checks the verifier needs to make in the situation that they are verifying an installation subject to a merger or split.
Special competences required	4.2	7.2	* gives specific examples of FAR related competencies that must be demonstrated by the verifier as part of its accreditation process. In particular in relation to the MMP, boundaries of sub-installations, specific quantification concepts such as exchangeability of heat/electricity, CWT factors, determining net heat flow, assessing most accurate data sources, etc.
Dealing with FAR related data gaps	-	7.3	New section outlining how to determine if a data gap has occurred and indications that the internal control system has failed or is not functioning correctly.
Product definitions and production data	4.3		Deleted in 2019 version

Content	Section in		Comments
	2011 GD4	2019 GD4	
Making use of template features	4.4		Deleted in 2019 version
Annex 1	5	8	
Main elements of the verification report	5.1	8.1	* describes the main elements of the FAR verification report and opinion statement (VOS) and brings it into alignment with the requirements of AVR:2018. References the Commissions VOS template which is consistent in style with the VOS for annual emissions verification.
Proposed verification statement	5.2		Deleted in 2019 version – reference is made to the Commissions FAR VOS template
General part	5.2.1		
Positive verification opinion	5.2.2		
Positive verification opinion with comments	5.2.3		
Negative verification opinion	5.2.4		
Experimental verification of capacity	5.3		Deleted in 2019 version as no longer applicable
Annex 2 - List of available Guidance papers	5.4	9	* references the list of updated guidance related to the data collection process for free allocation. Note there are new guidance notes as compared to the 2011 set.

Content	Section in		Comments
	2011 GD4	2019 GD4	
Annex 3 – Hierarchy of Accuracy for data sources	-	10	New annex outlining the hierarchies of 'most accurate data' that are specified in the FAR.
Annex 4 – Example 'Management Declaration'	-	11	New annex providing an example of a 'Management Declaration' that verifiers use as good practice for obtaining further assurance from operators that all relevant information (that the verifier requires to complete their work) has been provided.
Annex 5 – Comparison with 2011 Guidance Document 2	-	12	