



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL  
CLIMATE ACTION  
Directorate A - International and Climate Strategy  
CLIMA.A.3 - Monitoring, Reporting, Verification

**For NAB/NCA use only**

## **Man-day Guidance for NABs and NCAs**

### The Accreditation and Verification Regulation - Time allocation guidance/tool for NABs and NCAs

**AVR time allocation guidance/tool for NABs and NCAs, final version  
11 November 2013**

This document is part of a series of documents and templates provided by the Commission services for supporting the implementation of Commission Regulation (EU) No 600/2012 of 21 June 2012 on the verification of greenhouse gas emissions reports and tonne-kilometre reports and the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council.

The guidance represents the views of the Commission services at the time of publication. It is not legally binding.

This guidance document takes into account the discussions within meetings of the informal Technical Working Group on the Accreditation and Verification Regulation under WGIII of the Climate Change Committee (CCC), as well as written comments received from stakeholders and experts from Member States.

This time allocation guidance is intended for national accreditation bodies or national certification authorities as a practical tool that can be used to cross-check the time allocated by a verifier to a verification. This guidance/tool does not preclude that the European co-operation for Accreditation may bring forward superseding guidance/tools on time allocation.

All guidance documents and templates can be downloaded from the documentation section of the Commission's website at the following address:  
[http://ec.europa.eu/clima/policies/ets/monitoring/index\\_en.htm](http://ec.europa.eu/clima/policies/ets/monitoring/index_en.htm).

## Background

This time allocation guidance has been designed to assist NABs and NCAs, and is part of a suite of guidance documents developed by the Commission to explain the requirements of the EU ETS Regulation on Accreditation and Verification (AVR)<sup>1</sup>. The suite of guidance documents consists of:

- an explanatory guidance on the articles of the AVR (EGD I), including a user manual providing an overview of the guidance documents and their interrelation with the relevant legislation;
- key guidance notes (KGN II) on specific verification and accreditation issues;
- a specific guidance (GD III) on the verification of aircraft operator's reports;
- templates for the verification report and information exchange requirements;
- exemplars consisting of filled-in templates, checklists or specific examples in the explanatory guidance or key guidance notes;
- frequently asked questions.

As the allocation of time to a verification can be critical to its successful completion, this time allocation guidance has been designed as a practical tool that can be used by national accreditation bodies (NABs) or national certification authorities (NCAs) to cross-check the time allocated by a verifier to a particular verification engagement to ensure that appropriate time is allocated in different circumstances, i.e. for simple or more complex installations, aircraft operators, monitoring methodologies and processes. The guidance represents the views of the Commission services at the time of publication. It is not legally binding.

### 1. Objective of the man-day tool

The AVR requires the verifier to take into account certain factors when determining the time to be spent on a verification. The amount of time allocated is critical to the delivery of positive verification opinions based on reasonable assurance – the higher the risks the more time is required. The key for actual time allocation is the verifier's risk analysis: the identification of inherent and control risks impacts on the time allocated to the verification engagement. In some cases, the time allocated at the pre-contract stage will need to be adjusted based upon the additional information that becomes available to the verifier after a contract has been signed.

Art. 9  
AVR

During an assessment, reassessment or surveillance, NABs/NCAs should check, among other things, how verifiers are estimating and allocating time to verification engagements and whether this time is insufficient in practice. This can be done by checking the documentation on file to see what basis has been used to determine days allocated and whether the appropriate factors have demonstrably been considered. Checks carried out by NABs or NCAs should include, for example checks on:

- what factors the verifier took into account when allocating time and how it considered those factors;
- whether the amount of days spent on a verification is suitable, given:
  - the complexity of the installation or aircraft operator's activities;

---

<sup>1</sup> Commission Regulation (EU) No 600/2012 of 21 June 2012 on the verification of greenhouse gas emission reports and tonne-kilometre reports and the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council, OJ EU, L 181/1.

- the complexity of the monitoring plan;
  - the complexity and completeness of data flow activities and control system(s);
  - the materiality level; and
  - the location of information and records related to GHG emissions and tonne-kilometre data.
- whether more time was subsequently allocated in the case of the strategic analysis, risk analysis or other verification activities showing that additional time was needed.

Verifiers use their professional judgment to assess the relevant factors and to determine how much time should be allocated to a verification engagement. Prior experience suggests that competitive bidding imposes a risk that verifiers bring down prices in order to win contracts, and that once a verification has started, the time allocated to the verification team is reduced to meet the fee budget, rather than the budget adjusted to meet the time allocation required. NABs/NCAs should be aware of this pressure on verifiers and recognise that a large number of factors are included in the time allocation. However, the price or fee quoted is a commercial decision for the verifier which may not be always one-to-one related to the number of days required to deliver a verification to meet AVR requirements.

To ensure that time allocation is carried out consistently and independently, the practical tool laid down in this guidance can help NABs/NCAs to cross-check the time allocated by the verifier to a particular verification engagement. The guidance should not be seen as an absolute position as the assessment of proper time allocation depends on a number of more complicated factors, but in essence it is the outcome of the verifier's bespoke risk analysis. The NAB's/NCA's assessment of the verifier's time allocation and time spent on the verification therefore still remains an individual assessment taking into account specific factors: this tool can be useful for that assessment if used in combination with other situation specific considerations such as recorded in the internal verification documentation, verifier's time logs etc..

## **2. Explaining the application of the practical tool**

The guidance defines parameters to determine the expected minimum number of days that a verifier should spend on a verification<sup>2</sup>. The guidance considers the following elements in a step by step process:

- the number of emission sources (step I);
- the number of source streams (step II);
- the types of fuels and materials (step III);
- the total aggregate emissions (step IV);
- the size and complexity of the installation or aircraft operator (step IV));
- the complexity of the data flow activities and accounting processes (step V);
- the robustness of the associated control system(s) and the confidence a verifier has in those activities and system(s) (step V);
- summing up of elements (step VI);
- the number of times the same verifier has carried out the verification of the same installation or aircraft operator (step VII).

---

<sup>2</sup> This tool was first developed in Portugal and its experiences have been taken on board to make the tool suitable for use in the third trading period.

For each element, points are allocated depending on the factors considered in each step. The points allocated for each element are added up and in aggregate for all steps lead to an indication of the minimum number of days a verifier should spend on the verification engagement. It is stressed that this is an *indicative minimum* to help the NAB/NCA form a judgement about the robustness of the time allocations that the verifier has made and the adequacy of information recorded in internal verification documents. There may be many reasons why a verifier comes to a different conclusion on the appropriate number of days allocated to a specific verification; but the verifier should be able to justify its time allocation to the NAB/NCA. Finally, the tool does not exempt the NAB or NCA from making their own evaluation and assessment of the verifier’s time allocation. It is merely intended to support the NAB/ NCA in their assessment.

Information that is required for NABs/NCAs to make their own estimation of the appropriate time for an individual verification assignment should be available within the verifier’s internal documentation.

**Step I: Number of emission sources**

The higher the number of emission sources, the more points should be allocated (see the table below). When assessing the number of emission sources, the technical units giving rise to emissions must be counted, and not the individual emission points (e.g. chimneys). If there are, for example, three furnaces within an installation and those three furnaces are connected by two chimneys, they should be considered as three emission sources.

Step I – Number of emission sources	Points to score for step I
1 to 3	1
3 to 6	2
More than 6	3

**Step II: number of source streams**

The higher the number of source streams, the more points should be allocated (see the table below). Minor source streams, minor emission sources and de minimis source streams should not be included since these will have less impact on the amount of time spent on the verification process, and can make a hugely disproportionate impact on the awarded points, i.e. where it makes the difference between falling in one level or the next. For example, for the purpose of time estimation, two emergency generators that consume 20 litres of diesel per year should not be regarded as two additional emission sources since their contribution to, and hence impact on the overall emissions is relatively small, and the time required to check them insignificant<sup>3</sup>.

Step II – Number of source streams	Points to score in step II
1 to 3	1
3 to 6	2
6 to 9	5
More than 10	10

<sup>3</sup> However, the NAB/NCA should check that verifiers in their time allocation do include some time to review the minor and de-minimis source streams.

### Step III Type of source streams

The greater the number of fuels (especially non-standard ones) or materials, and also the inclusion of biomass fuels mean that more evaluation and testing is required by the verifier, and hence more time.

Step III – Source stream type	Points to score in step III
Only commercial standard fuels or biomass where the biomass fraction is 97% or more in accordance with Article 38(4) of the MRR	1
Only liquid fuels, biomass where the biomass fraction is 97% or more in accordance with Article 38(4) of the MRR <sup>4</sup> or natural gas	4
Any combination of fuels (liquid, solid and/or gaseous fuels and materials, mixed biomass)	8

### Step IV. Amount of emissions

The larger the total amount of emissions an installation/aircraft operator emits, the more points should be allocated. This relates to the total reported fossil CO<sub>2(e)</sub> emissions per year. For initial time evaluation purposes - at the pre-contract stage - it may be necessary for the verifier to use prior year verified emissions as the basis for their estimation. However, for NABs/NCAs completing this step, the actual annual emissions data are likely to be available and should be used.

Step IV – Total annual emissions	Points to score in step IV
Annual emissions equal to or less than 25,000 tCO <sub>2(e)</sub>	0
Annual emissions equal to or less than 50,000 tCO <sub>2(e)</sub>	1
Annual emissions equal to or less than 500,000 tCO <sub>2(e)</sub>	8
Annual emissions more than 500,000 tCO <sub>2(e)</sub>	15

Based on expert judgment, points can be allocated between the bands listed in the table to accommodate the situation at hand.

### Step V Complexity of data flow activities and robustness of control system

The number of days to be spent on the verification depends very much on the complexity of the accounting system, and the robustness and adequacy of the operator's data management systems and control system. (It is likely that the complexity of the accounting system has a larger impact on the number of days than the complexity of site operations).

During the pre-contract stage the verifier should have data flow information on:

---

<sup>4</sup> NABs/NCAs should be aware that new requirements on the sustainability of biofuels and bioliquids apply and that verifiers are required to carry out certain checks (please see MRR Guidance Document GD3 and the key guidance note on process analysis KGN II.4). NABs/NCAs should be mindful that verifiers should perform these checks and allocate sufficient time to cover this. If a national certification system is used, the checks could involve more detailed verification. The table in step III will therefore be kept under review to check its continued appropriateness.

- the number of strands of data coming together in the manipulation and aggregation of data (e.g. single strand of data vs. multiple strands – the greater the number of strands of data, the higher the likelihood of errors etc. to occur, so more checking will be required);
- the degree of automation included in the accounting process (i.e. significant manual handling of data increases the risk of misstatement, requiring additional checking, although a certified environmental management system according to ISO 14001 and EMAS should cover this);
- the nature and types of control processes applied to the accounting system (e.g. formalised and more documented control activities are likely to be more effective, in which case this leads to less checks being needed).

This pre-contract stage enables the verifier to conduct an initial assessment of likely inherent and control risks as well as the complexity of the control activities and procedures in place. This needs to be recorded in the verification documentation. For accreditation assessment, this information can be used to determine the number of points to be allocated in line with the following table.

<b>Step V – Level of complexity and control</b>	<b>Point to score in Step V</b>
Very low complexity and good controls in place	2
Moderate complexity and good control	8
High complexity but good control	16
Moderate/High complexity and poor control	30

Based on expert judgment and the level of confidence in the control system recorded by the verifier in its internal verification documentation, points can be allocated between the bands listed in the table above to accommodate the situation at hand, for instance in the case of moderate complexity and poor controls.

The identification of the inherent and control risks determines the level of confidence a verifier has in the robustness and adequacy of the data management systems and the control system. This information should be fully documented in the strategic analysis and risk analysis work papers, so that it is available to NAB/NCA assessors when they conduct their evaluation. However, it is important to note that the existence at the installation/aircraft operator of an ISO 9001, ISO 14001 or EMAS system does not in itself necessarily imply that the verifier can be sufficiently confident in the robustness of the control system. Experience suggests that these systems may in fact not include controls on the data accounting and reporting processes. NAB/NCA assessors should carefully review the use of this evidence in the verifier’s estimation of its initial time allocation to ensure that they have not placed undue reliance upon these operator’s systems.

Whether the verifier’s level of confidence is high, medium, low or very low depends on the specific circumstances, the professional judgment of the verifier and the outcome of the individual risk analysis. During the verification, confidence in the robustness of control activities, procedures and other elements of the control system may change because, for example, non-conformities are identified or the risks of misstatements have increased. In turn this will have an effect on the time allocation, which may need to be adjusted.

Therefore NAB/NCA assessors should also seek evidence that appropriate updates in the time allocation planning have been carried out.

During the verification, the following should be considered by the verifier:

- The level of confidence is closely connected to the outcome of the risk analysis. A high control risk means that the verifier has a low level of confidence in the robustness of the control system and procedures. A medium control risk implies a medium level of confidence, whereas a low control risk will likely lead to a high level of confidence in the adequacy of the control system and the procedures in place (please see step IV of the key guidance note on risk analysis KGN II. 2);
- If an installation has an accredited certified management system in conformance with requirements such as ISO 9001, ISO 14001 or EMAS, this can increase the verifier's confidence in the control system – provided that it is evident that such systems incorporate relevant data accounting and reporting processes (and the NAB/NCAs assessment should evaluate whether the verifier has checked this). However, this does not exempt the operator from having to implement control activities and procedures that are commensurate with the inherent and control risks. Note that small installations may not have ISO 9001, ISO14001 or EMAS systems. This does not mean that the control system is not robust. The determining factor is whether the verifier has sufficient confidence that the control activities and procedures implemented will consistently mitigate the inherent and control risks.
- The difference between low and very low confidence in the effectiveness of the control system depends on specific circumstances. Low confidence could mean that there is a control system and procedures in place but these are not proportionate to the inherent and control risks identified or are not properly documented and implemented. Very low confidence could exist if the installation has no proper system in place for collecting or processing data, nor the proper procedures with the consequence that the control risks are very high.

**Supplementary Note** - During the strategic and risk analysis these systems will be more fully assessed by the verifier to give him an indication of the actual complexity and the relevant inherent and control risks: at this stage the allocation of time should be reviewed by the verifier to ensure that it is adequate for the level of confidence that the verifier obtains from its risk analysis at the completion of the strategic analysis. Accreditation assessment should check to confirm that such a review has formally taken place and has been recorded in verification work papers.

### **Step VI summing up all the elements**

The total number of points scored is calculated by summing up the number of points allocated for each Step I to V. The aggregate number of points in the relevant column in the table below indicates the expected minimum number of man-days that a verifier should spend on the verification. NABs/NCAs may use this as a comparison when evaluating the time allocation recorded in the internal verification documentation. If the verifier has allocated or applied (significantly) fewer man-days than the number estimated by NAB/NCA using this tool, the accreditation assessor should seek an explanation or justification for the number of man-days allocated; whether the number used was appropriate and how the verifier ensured that reasonable assurance was delivered within the time allocated.

<b>Sum of the points allocated per step</b>	<b>Up to 8</b>	<b>8-23</b>	<b>24-35</b>	<b>36-50</b>	<b>&gt;50</b>
<b>Minimum verification man-days</b>	<b>1.5</b>	<b>2-3</b>	<b>4-5</b>	<b>6-7</b>	<b>8-9</b>

The minimum time estimation will include the amount of time spent on site interviewing, inspecting and witnessing etc. The amount of time allocated to on-site work compared to off-site work depends upon many factors; the NAB/NCA assessors should therefore make an assessment as to whether the apportionment of time between on-site and off-site seems reasonable based upon the information they have evaluated to arrive at their estimation of the minimum time needed to complete the verification work. If a waive of the site visit has been approved, this should be taken into account in the assessment.

Whether the time allocation estimate is more appropriate at the top or at bottom of the indicated range will depend on the specific circumstances of a verification. The range should be taken as indicative for comparing against the verifier’s actual time allocation. In practice the verifier is required to consider other factors that can influence time allocation (see the key guidance note on time allocation for verifiers KGN II.12). Furthermore, additional days must be allocated and applied by the verifier if its strategic analysis, risk analysis or other verification activities subsequently show that additional time is needed (see the supplementary notes on Step V). Accreditation surveillance should expect a formal documentation of this to be available as well as a formal notification to the client (and acceptance by them) that additional time is required.

**Step VII Number of verifications carried out for the same operator**

If the verifier has carried out the prior year(s) verification(s) for the same installation or aircraft operator, it could affect the time allocation since the verifier knows the specific relevant details and has prior experience of the quality of the control processes in practice. Under this step, day(s) are subtracted from the total number of days allocated if this is the case (see the table below).

<b>Step VII – Number of verifications carried out for the same operator</b>	<b>Reduction time</b>
1 <sup>st</sup> Verification	No time may be subtracted from the total number of days allocated
2 <sup>nd</sup> verification in a row	0.5 to 1 day may be subtracted from the total number of days allocated or the minimum value of the indicated range

Where the verifier has also reduced the time required for the same reason, this should be justified in the internal verification documentation. The areas where time can be saved are largely in the strategic review and planning aspects of the verification process. Significant reduction in detailed testing should be carefully scrutinised by accreditation assessors to evaluate whether it was justified. Data handling year on year could be done by different people and under different circumstances. In that case, prior year results cannot be used to



confirm current year status, so an appropriate allocation of time for testing would be expected.

### **3. Impact on time allocation if the verification team consists of more than one auditor**

The initial time allocation using the man-day tool should be made assuming that there is a one person team delivering all the required tasks needed to complete the verification work (plus an independent reviewer). In the case of a multiple person verification team the actual apportionment of time by a verifier can then be done on the basis of efficiency, which may enable the total amount of time to be reduced; but reduction in total time allocated should not be at the expense of delivering the work required for reasonable assurance.

Where a verification team consisting of multiple persons is being used, it may in fact be necessary to add time to the budget to allow for oversight by the EU ETS lead auditor as well as time required for project management, consolidation of individual work papers and communications between the team members, including common meetings with the operator.

Where the verification team requires additional technical expertise (from external experts) to supplement the team's knowledge and competence, additional time needs to be allocated to the time budget.

The time budget allocated should include an amount of time for the independent review proportionate to the scale and complexity of the verification.

### **4. Cross-check of time allocated vs. time actually applied during the work**

In addition to checking the time allocated to the verification at the start of the project, NABs/NCAs should review the time actually spent on the project work in comparison to the time allocated. This is to ensure that the time actually spent on work is appropriate and in line with the initial allocations; and that the balance of work across members of a verification team, any supporting technical experts and the independent reviewer is in line with both planning and time allocation expected for a good quality verification providing a verification opinion with reasonable assurance.