

Supplementary appendix – Reference scheme/program: GHG Inventory Edition: 01/2023

CHAPTER 1 - GENERAL

This appendix defines the procedures applied by RINA for verification activities and the methods to be followed by interested parties in order to request and obtain verification on the GHG Inventory scheme of products or services, with respect to what is already defined in the General Rules for validation and verification activities of information declared in claims.

RINA offers verification of the GHG inventories according to the principles and requirements of the reference standard ISO 14064-1.

The calculation and reporting of GHGs shall follow the principles of pertinence, completeness, coherence, accuracy and transparency.

The verification activity must be understood as a punctual activity aimed at assessing the reliability of data related to the calculation of the GHGs over a specific time period.

The verification activity therefore aims to ascertain compliance with the principles and requirements for the design, development, management and reporting of GHG inventories at the organization level through: determination of GHG emissions and removal boundaries, quantification of emissions and GHG removals from an organization, and the identification of specific actions or activities of the organization aimed at improving GHG management.

CHAPTER 2 – REFERENCE SCHEME/PROGRAM / REQUIREMENTS FOR VERIFICATION

- ISO 14064-3:2018 - Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.
- ISO 14064-3:2019 - Greenhouse gases - Part 3: Specifications and guidance for validation and verification of greenhouse gas claims.
- ISO 14065:2020 - General principles and requirements for bodies validating and verifying environmental information.
- IAF MD 6 - IAF Mandatory Document for the Application of ISO 14065.

Definitions

- Greenhouse gas GHG: gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere and clouds.
- Greenhouse gas source GHG source: process that releases a GHG into the atmosphere.
- Greenhouse gas sink GHG sink: process that removes a GHG from the atmosphere.
- Greenhouse gas reservoir GHG reservoir: component, other than the atmosphere, that has the capacity to accumulate GHGs and to store and release them.
- Greenhouse gas emission GHG emission: release of a GHG into the atmosphere.
- Greenhouse gas removal GHG removal: withdrawal of a GHG from the atmosphere by GHG sinks.
- Greenhouse gas emission factor GHG emission factor: coefficient relating GHG activity data with the GHG emission.
- Greenhouse gas removal factor GHG removal factor: coefficient relating GHG activity data with the GHG removal.
- Direct greenhouse gas emission direct GHG emission: GHG emission from GHG sources (owned or controlled by the organization).
- Direct greenhouse gas removal direct GHG removal: GHG removal from GHG sinks owned or controlled by the organization.
- Carbon dioxide equivalent CO₂eq: unit for comparing the radiative forcing of a GHG to that of carbon

dioxide.

- Greenhouse gas inventory GHG inventory: list of GHG sources and GHG sinks, and their quantified GHG emissions and GHG removals.
- Base year: specific, historical period identified for the purpose of comparing GHG emissions or GHG removals or other GHG-related information over time.
- Monitoring: continuous or periodic assessment of GHG emissions, GHG removals or other GHG-related data.
- Facility: single installation, set of installations or production processes (stationary or mobile), which can be defined within a single geographical boundary, organizational unit or production process.
- Organization: person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives.
- Client: organization or person requesting verification.
- organizational boundary: grouping of activities or facilities in which an organization exercises operational or financial control or has an equity share.
- Reporting boundary: grouping of GHG emission or GHG removals reported from within the organizational boundary, as well as those significant indirect emissions that are a consequence of the organization's operations and activities.
- Verification: process for evaluating a statement of historical data and information to determine if the statement is materially correct and conforms to criteria.
- Level of assurance: degree of confidence in the GHG statement.

CHAPTER 3 - CONTRACT

3.1

RINA prepares the offer on the basis of the following information/documents

- a) name and address of the client/Organization;
- b) description of the organization;
- c) activities, sources of emissions and types;
- d) description of the processes and technologies used;
- e) site (s) where information and data on emissions are kept;
- f) extension of the inventory in terms of the categories of GHG emissions considered;
- g) location and characteristics of the GHG statement (i.e. Organizational boundaries);
- h) GHG sources, sinks and/or reservoirs;
- i) the inclusion or not in the inventory operational boundary of "other indirect emissions", meaning those GHG emissions, other than energy indirect GHG emissions, which are a consequence of the Organization's activities, but arise from GHG sources that are owned or controlled by other Organizations;
- j) types of GHG;
- k) time period(s);
- l) agreed scheme/s;
- m) level of assurance required;
- n) relative size (in CO₂eq) of the GHG statement; and
- o) all the information reported in the informative questionnaire.

Two levels of assurance are established according to the degree of confidence of the data contained in the GHG Inventory:

- REASONABLE LEVEL OF ASSURANCE: with which a materiality threshold is associated as defined below:
 - for inventories equal to or < 10,000 tCO₂eq/year: 15.0%;
 - for inventories between 10,000 tCO₂eq/year and 50,000 tCO₂eq/year (inclusive): 12.5%;
 - for inventories above 50,000 tCO₂eq/year: 10.0%

- LIMITED LEVEL OF ASSURANCE: with which no materiality threshold is associated in relation to the stated information.

3.2

The contract stipulated between RINA and the Organization includes

- the document review of the Organization's documents (including strategic and risk analysis of verification)
- the collection of sufficient objective evidence on original data/information, ensuring traceability through the data/information management process, further analysis and calculations; the identification of errors and consideration of their relevance; the assessment of compliance with requirements (also by means of field visits/site assessments and telephone or remote interviews).

CHAPTER 4 - PLANNING

4.1

Together with or following the verification request, the Organization is to make the following documentation available to RINA:

- a) Monitoring plan;
- b) GHG report which describes the inventory GHG or initiative aimed at improving GHG management;
- c) Calculation sheets and formulas;
- d) any information/documents required by the agreed scheme.

In addition to the above documentation, RINA may, at its discretion, also request additional documentation to be examined that it deems necessary for verification.

CHAPTER 5 –VERIFICATION EXECUTION

The team reviews the documents to ensure that they meet the agreed verification criteria.

Through the examination of the documentation, the team initiates and proceeds to the strategic analysis and risk analysis as described below.

Strategic analysis

At the beginning of the verification, RINA assesses the probable nature, extent and complexity of the verification tasks by performing a strategic analysis of all the activities that concern the GHG declaration.

Strategic analysis includes the following factors:

- the organization's control system for the identification and control of risks in the processing of data which could result in incorrect data in the GHG statement;
- any changes to the installation during the year (organization structure, product or production changes or processes) if the organization's inventory has already been verified previously;
- any management system (environmental or other) that the organization adopts relating to the management or processing of the emission data;
- type, purpose and complexity of the equipment and processes used to generate emissions, including calculation methods;
- the level of relevance defined by the organization.

Risk analysis

Based on the result of the strategic analysis, RINA conducts a risk analysis (identification and verification of uncertainty / errors in the organization's emission base and their importance for the result in quantifying the emissions) which, at a minimum, must include what follows:

- total emission relating to individual emission sources;
- complexity of the organization's processes and installations;
- adequacy of the management system, the data processing system and the control system;
- information relating to previous assessments at the organization's installation.

As a result of the strategic and risk analysis, the verification times and sites to be sampled may be modified compared to those defined in the contract review.

Verification Process

Following the document review, the team identifies additional questions and issues (objective evidence) that need to be addressed with the Organization.

The process also demands an on-site assessment when it is a requirement of the supervisory body of the system/scheme or by the accreditation body/competent authority, or at the discretion of RINA in relation to the nature of the statement in all other cases.

The date of the on-site assessment is agreed with the Organization sufficiently in advance and officially confirmed at least one week before.

The visits to the sites (installations and / or places where data is managed) of the organization are used to establish:

- the accuracy of the calculations;
- if the data were generated under acceptable conditions;
- if the calculation methods are suitable and even if the resulting activities, calculations, measurements, calibrations, etc. are all carried out as defined by the monitoring plan;
- if the organization's monitoring system is appropriate to the conditions of the organization and if:
 - includes all sources of GHG (for example also emergency units);
 - includes the emissions of all types of GHG;
 - includes the categories of significant GHG emissions;
- whether the methodology adopted for the measurement, including the positioning of energy and fuel meters, is able to give an accurate image of the organization's GHG emissions.

The verification must be performed at the organization's site(s) unless another method can be justified in specific cases.

If, during the review of the documentation by the team if it was decided not to carry out the visit on the field, doubts or problems arise that cannot be solved without a visit to the site, the team must still carry out such visit to the organization to resolve any necessary clarification.

The verification is carried out on the basis of sufficient sampling to verify the reliability of the data and information.

If the team detects non-conformities, the times and methodology for the follow-up must be agreed with the manager of the corrective actions at the organization.

The follow-up resulting from the previous verification is documented in the follow-up verification report.

During the verification, the reliability, credibility, accuracy of the monitoring systems and related data are assessed, as well as information regarding emissions, including, in particular:

- the choice and use of the measurement methods used;
- calculations to define total emissions;
- how to use measuring instruments, including calibration;
- any data that have been modified as a result of the verification and the causes of these changes.

Draft Report

After the on-site visit, the team provides to the Organization a Draft Verification Report that summarises the issues that need to be further elaborated upon, researched or added to by the representatives of the Organization in order to confirm that the GHG statement meets the requirements.

The Organization must provide additional information to clarify or otherwise make necessary improvements to the Report and documentation that would result in a positive verification outcome for the project.

According to the nature of the improvements/corrections and/or documentation provided, an on-site assessment may be necessary to verify the correct implementation of the proposed corrective actions.

Findings management

In GHG inventory audits there can be 3 types of findings: CAR (Corrective Action Request), CL (Clarification Request), R (Recommendation).

A Corrective Action Request (CAR) is issued if one of the following situations occurs:

- the requirements have not been met,
- errors have been made in assumptions, data or calculation.

A request for clarification (CL) is issued if the information is insufficient or not clear enough to determine whether the applicable requirements have been correctly applied. A CL could then lead to a CAR, should the clarification reveal a non-fulfilment of a requirement of the standard, or be positively closed should the additional information provided show compliance with the standard.

A recommendation (R) is a cue for improvement that can be taken into account for future updates of the carbon footprint.

Final Report

Upon receipt of responses and modified documents from the Organization to the issues, the Draft Verification Report is revised to reflect the responses of the Organization and comments of the team against each of the issues. The Final Verification Report is prepared including the final verification opinion.

The Final Verification Report is issued once all the findings in the draft verification Report have been solved and accepted by RINA.

If the findings are not satisfactorily solved and accepted:

- after 3 months of the first issuance of the Draft Verification Report - The Protocol; or
- there are more than three revisions

RINA reserves the right to terminate the contract or to issue the Final Verification Report and a negative opinion, following agreement with the Organization, the right to receive the fees agreed being understood.

Verification opinion

On the basis of the information collected during verification, RINA presents a Verification Opinion. The Verification Opinion includes at least one of the following opinions:

- Positive Opinion for Limited assurance level;
- Positive opinion for Reasonable assurance level;
- Negative Opinion.

The Verification Opinion issued for the GHG according to ISO 14064-1 contains the following information

- a) identification of the GHG-related activity;
- b) identification of the GHG statement, including the date and period covered by GHG statement;
- c) identification of the responsible party and a statement that the GHG statement is the responsibility of the responsible party;
- d) identification of the criteria used to compile and assess the GHG statement;
- e) a declaration that the verification of the GHG statement was conducted in accordance with this document;
- f) the verifier's conclusion including level of assurance, if applicable;
- g) the date of the opinion.

The verification statement cannot contain any reference to any GHG offsets undertaken by the company.

CHAPTER 6 – DECISION AND ISSUE OF THE VERIFICATION STATEMENT

The verification report and the verification opinion are subject to independent technical review and decision making to ensure that the verification process has been performed in accordance with the agreed scheme/programme, that the procedures for the verification activities have been properly followed and that due professional diligence and judgement have been applied.

The independent technical reviewer also assesses whether the evidence gathered is sufficient to enable RINA to issue a verification opinion with reasonable certainty.

RINA informs the Organization in writing of the conclusions it has reached concerning the verification.

CHAPTER 7 – MODIFICATION AND WITHDRAWAL OF THE STATEMENT

The General Rules for validation and verification of Information Declared in Claims apply.

CHAPTER 8 - COMPLAINTS AND APPEALS MANAGEMENT

The General Rules for validation and verification activities of information declared in claims apply

CHAPTER 9 - CONTRACTUAL CONDITIONS

The General Rules for validation and verification activities of information declared in claims apply

CHAPTER 10 - AGREED-UPON PROCEDURES (AUP)

RINA may perform an AUP engagement provided that the intended user agrees on the evidence collection activities and assumes responsibility for these procedures.

Should the Organization request, as a result of the service provided, a report on the results of the verification activity without indicating an opinion, RINA will explicitly agree at contractual level with the client, in the offer and in the contract

- the procedures to be performed
- the elements to be verified
- the criteria for collecting evidence;
- the criteria to be used to determine the results;
- the minimum elements to be stated on the report.

If the intended user intends to disclose the results of the agreed procedure to a wider audience (e.g. public statement), any limitations on the disclosure of the information contained in the report should be specified both in the agreement signed with the intended user and in the report itself.

CHAPTER 11 – MIXED ENGAGEMENT

A "mixed engagement" is defined as an engagement in which verification activities are carried out simultaneously on the same GHG statement.

For each engagement, it is essential to define between RINA and the Organization:

- the methodology applied (verification / AUP),
- and the results obtained from the execution of each type of engagement.

RINA will issue a single opinion at the end of the activities containing the opinions of the engagements as agreed with the Organization (client).