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## Program Description

### PCF Verification Program



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### PCF Verification Program

## 2. PURPOSE

This document describes the verification program of product carbon footprints for the **public**. The program for verification of a product carbon footprint is to define processes relating to the verification of PCF. It will give an overview about the process and activities of PCF verification. It will also give an overview about the complaints and appeals process as well as requirements regarding the use of the verification body's opinion. The commitment to impartiality is also stated.

Internal process details are not part of this program but will be detailed in a separate internal work instruction.

## 3. SCOPE

This program describes the service of PCF verification according to

- ISO 14064-3:2019
- ISO 14065:2020
- ISO/IEC 17029:2019

The procedure applies to PCF claims made using ISO 14067 and requirements of that which are to be verified by verification bodies under TÜV SÜD Product Service Division. This program does not exclude any regions nor industries. Case-by-case decisions on the engagement will be taken based on the contract review.

Comparison based on the PCF of different products is allowed when meeting the criteria of Annex B - ISO 14067.

## 4. DEFINITIONS

### 4.1. Terms related to the PCF assessment procedure

#### **Client**

Organization or person requesting verification

#### **Claim**

Information declared by the client or another party

#### **Verification team**

One or more verifiers who implement verification.

#### **Verifier**

competent and impartial person with responsibility for performing and reporting on a verification.

#### **Senior Verifier**

The Senior Validator/ Verifier is responsible for review, decision and issuing the verification/ validation statement.

#### **Team Leader**

The person who manages the validation/verification team.

#### **Engagement Officer**



### PCF Verification Program

a person who reviews an application for validation/ verification and decides whether the application is acceptable.

#### **Statement**

The announcement of the output of the validation/ verification activities by a verification body under TÜV SÜD Product Service Division.

#### **Verification**

A systematic, independent, documented process of evaluating the clients claims according to the verification program and implementation rules.

#### **Level of assurance**

The level of confidence in a claim.

#### **Materiality**

is the concept that misstatements, individually or aggregated, can influence the reliability of the claim or decisions made by the intended user. Materiality can be qualitative or quantitative.

## 4.2. Terms related to Product Carbon Footprint

### **Product Carbon Footprint (PCF)**

Also called CFP (Carbon Footprint of Products) in the ISO 14067. Sum of GHG emissions and GHG removals in a product system, expressed as CO<sub>2</sub> equivalents and based on a life cycle assessment using the single impact category of climate change

### **Input**

material or product that enters an organization or part of an organization

### **Output**

material or product that leaves an organization or part of an organization

### **Source**

specific originator at a location of a material or product with a specified characteristic

### **Site**

location with geographical boundaries at which defined activities under the control of an organization are carried out

### **Process**

set of interrelated or interacting activities that use inputs to deliver an intended output

### **GHG (Greenhouse gas)**

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 (ISO 14067)



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#### **Greenhouse gas SSR (sources, sinks and reservoirs)**

Greenhouse gas sources are origins of gases that contribute to the greenhouse effect (e.g. fossil fuel combustion) resulting in a net positive emission in the GHG model's system. Sinks are natural or artificial processes that absorb and store these gases (e.g. forest, ocean, carbon sequestration techniques) resulting in a net negative emission in the GHG model's system. Reservoirs are places which emit and absorb carbon (e.g. forest, ocean). If in the GHG model's system they emit more GHGs than they absorb, they are sources, otherwise they are sinks.

## **5. RESPONSIBILITIES**

The program responsible person is responsible for the content of this verification program for PCF. Responsibilities of personnel roles in the process are defined within this program.

This program is owned by the validation/verification body of CRT-MUC of the TÜV SÜD Product Service.

## **6. COMPETENCE CRITERIA**

Competence criteria are internally defined and periodically evaluated and monitored. The competence criteria meet the requirements from ISO 14064-3:2019 and ISO 14066:2011.

## **7. PROCESS STEPS**

### **7.1. Pre- Engagement**

After initial contacting, the client submits information sufficient to carry out a pre-engagement review. To do this, TÜV SÜD provides a suitable questionnaire.

Important point to clarify are inter alia:

- a) client name and the proposed claim to be verified;
- b) locations where the client's activities are undertaken;
- c) Engagement type
- d) the objectives of the verification;
- e) the criteria of the verification;
- f) the scope of the verification;
  - a. boundaries;
  - b. facilities, physical infrastructure, activities, technologies and processes;
  - c. GHG SSRs;
  - d. types of GHGs;
  - e. time period.
- g) reports, data and any other relevant information, most importantly the PCF report written according to ISO 14067 and the PCF model;
- h) the materiality and the level of assurance;
- i) any other information as required by the verification scheme



PCF Verification Program

7.1.1. Acceptance of prior results

Results generated prior to the engagement (e.g. verified PCF claims of used materials) can be accepted by the verifier. The verifier shall base his decision on the verification risk of not verifying this themselves, the potential impact on the materiality of the claim and on the trustworthiness and transparency of the given results.

7.2. Engagement

After aligning with the client on the service provided, TÜV SÜD shall have an agreement with each client for the provision of verification activities. For third-party verification activities, this is a legally enforceable agreement (e.g. a contract).

7.3. Planning

Verification planning is a strategic, risk-based exercise carried out in order to develop the verification plan of data sampling and activities to be performed during the verification. A kick-off meeting (on- or off-site) can be useful to introduce the verification team, confirm GHG fundamentals, discuss verification approach and time frame as well as potential evidence needed in the verification execution step. The verification plan will be shared with the client.

The verification team is formed based on necessary skills and competences to undertake the verification. The verification team shall exercise due professional care and judgment during the verification engagement.

7.3.1. Risk-based approach

The programme provides objectives for risk-based approach regarding (i) threats to impartiality as well as impact on (ii) quality of validation/verification activities (iii) reliability of results.

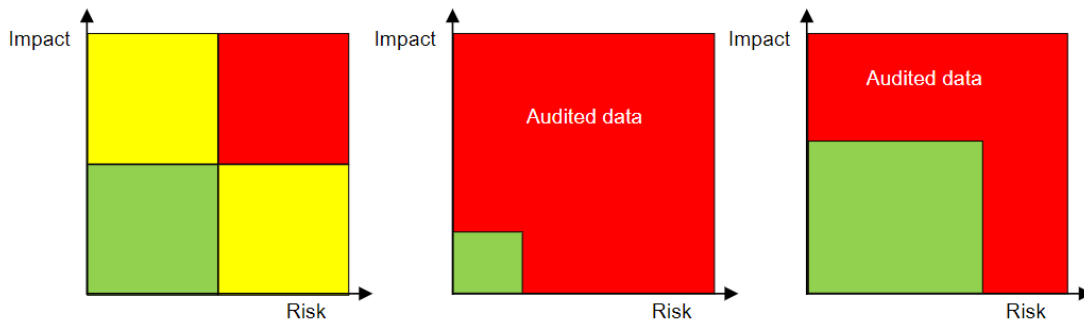


Figure 1 left: General Risk-Impact matrix, middle: reasonable level of assurance, right: limited level of assurance.

The higher the impact (or influence) of a dataset (or formula etc.) on the overall PCF result and the higher the risk of a material misstatement of a dataset, the more important it is to verify and audit it. Depending on the resulting risk assessment as well as the chosen level of assurance, a bigger or smaller sampling pool of audited data results for the evidence-gathering plan.



#### 7.4. Verification execution – evidence gathering activities

##### 7.4.1. Document check

Verification of the PCF claim includes reviewing evidence on various aspects based on various tests and documents. The document review checks the

- a) PCF report written according to ISO 14067
- b) PCF model
- c) PCF data
- d) Data & evidence already available and sent (e.g. BOM, energy invoices...)

##### 7.4.2. On-site visit

Generally, the necessity for an on-site visit and the amount of site to be visited is individually decided by the verifier but dependent on the level of assurance and the materiality as well as on the results of the document check.

Usually, after the document check a site-visit is conducted at the agreed upon and material production sites to check the general truthfulness of the underlying data through evidence. Therefore, part of the site visit are:

- a) Data & evidence
- b) Production processes at production site incl. the measurement of reported primary data
- c) General quality measurements
- d) Potentially addressing found non-conformities or question from the document check

Due to the different complexity of a PCF system, an on-site visit can take one or more days to complete.

##### 7.4.3. Dealing with non-conformities

Finally, where the verification activities identify material anomalies, variances, trends, data gaps or data that are inconsistent with other relevant information or that differ materially from expectations, the verifier will obtain explanations from the client, and raise an action list summarized in the non-conformity record or report form.

The verifier will follow up on actions to address misstatements and non-conformities / non-compliances and verify effectiveness of action taken. If the verifier is not fully satisfied with the explanations or supporting evidence, this may have an impact on the nature, timing, and extent of the verification activities, and also the resulting verification opinion.

#### 7.5. Reporting

The verifier will write the verification report. The verifier shall document the available evidence and draft a verification conclusion based on the report.

#### 7.6. Review

TÜV SÜD will carry out review activities. The review of the verifier's work and findings is carried out by a knowledgeable person, an appointed senior verifier, who has not been



involved in the verification planning or execution and was not part of the verification team  
– the 4-eyes-principle.

#### 7.7. Decision & Issue of Statement

Upon completion of the verification review, TÜV SÜD shall make the decision on whether to confirm the claim. Based on this decision, a verification statement is issued. The PCF statement will be made available in the [TÜV SÜD Certificate Explorer](#) for the public to verify the validity of the statement.

##### 7.7.1. Content of the verification statement

The content of the verification statement adheres to ISO 14064-3 chapter 9.3.

#### 7.8. Issue of the PCF verification mark

The PCF verification mark can only be issued if the quality requirements of the [TCVVR](#) are fulfilled. The PCF verification mark will be made available in the [TÜV SÜD Certificate Explorer](#) for the public to verify the validity of the mark.

#### 7.9. Facts Discovered After the Verification

TÜV SÜD reserves the right to reassess the conclusions in the verification report and potentially reissue the verification statement if any facts about the GHG assertions are brought to our attention after the verification.

If, after the date of issuance, new facts or information are discovered that may have a significant impact on the product carbon footprint verification statement, the verification body shall

- a. Communicate with the client and program owner about this as soon as practicable.
- b. Take appropriate action, including:
  - i. Discuss the matter with the customer;
  - ii. Consider whether the verification statement needs to be revised or withdrawn.

#### 7.10. Outsourcing

Outsourcing is temporarily not done. All work will be carried out by TÜV SÜD personnel.

## 8. COMPLAINTS AND APPEAL PROCESS

Parties that have an interest in verification can send in complaints and appeals. These complaints and appeals will be appropriately managed and resolved. Responsiveness to complaints is necessary in order to demonstrate integrity and credibility to all users of verification outcomes.

Details are given in the [TCVVR](#).





Should there be any issues that render a previously issued verification invalid or inaccurate, the verification body will notify the client and trigger the appeals & misuse handling procedure of CRT-MUC.

## 9. REQUIREMENTS REGARDING THE USE OF THE VERIFICATION BODY'S OPINION

The requirements regarding the use of the verification body's opinion, also called verification statement, is described in the [TCVVR](#).

## 10. INTERNAL QUALITY ASSURANCE PROCESSES

Internal quality assurance processes such as annual management review, sample checks of past verifications and internal audits ensure the highest quality of the verification services.

### 10.1. Records keeping

All relevant verification records will be kept for a minimum of 10 years.

### 10.2. Commitment to impartiality

Internal quality assurance processes as well as personnel appointment processes confer to impartiality as the highest good. TÜV SÜD monitors its activities and its relationships to identify threats to its impartiality. This monitoring shall include the relationships of its personnel. To uphold impartiality of individual verifiers but also of the verification body is of utmost importance. Any indication of not being or acting impartial shall be addressed to the head of the verification body for further review.

### 10.3. Confidentiality

TÜV SÜD has an established mechanisms to safeguard the confidentiality of information obtained or created during the verification

## 11. ATTACHMENTS

none

## 12. APPLICABLE DOCUMENTS

Testing, Certification, Verification and Validation Regulation of TÜV SÜD (TCVVR) accessible at <https://www.tuvsud.com/tcr>

## 13. QUALITY RECORDS

None